312066 0333 2660 5

SHOUT
SHARE
IT

UNIVERSITY OF MASSACHUSETTS
LIBRARY

LIBRARY
UNIVERSITY OF
MASSACHUSETTS
AMHERST, MASS.

Established in 1861
THE AMERICAN
Oldest Bee-Paper in America
BEE JOURNAL

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., JULY 6, 1893. NO. 1.

EDITORIAL BUZZINGS

Who Taught the little busy bee
For honey sweet to dip,
And snigger round each blooming flower,
Until she gets a sip?

If she but understood her game,
No honey would she give,
But simply take enough each day
To enable her to live.

Then when the autumn winds did blow,
She'd calmly strut about;
For they wouldn't burn her bally hive,
Nor with brimstone funk her out.
—*London Sporting Times.*

◆

Welcome is the honey the visiting bee finds in the flower.

◆

Volume XXXII we begin with this number of the BEE JOURNAL. We are not going to make any promises as to the future, only to say that if you fail to read the BEE JOURNAL right along from now on you will miss something that might prove very valuable to you. We hope that you will not only continue to read the BEE JOURNAL yourselves, but that each one may get somebody else to read it regularly. By this, you will not only be doing us a great favor, but will be helping your friends to a means of gaining practical help in bee-keeping.

The Foul Brood Cure, as practiced by Mr. McEvoy, the Foul Brood Inspector of Ontario, Canada, we publish in full this week, on page 15. We wish that those whose apiaries are afflicted with that terrible malady would give Mr. M.'s method a thorough trial, and then report results. He says that "the best bee-keepers in Canada like it the best of any method yet offered, and it is well and favorably known in Ontario, not even one to find any fault with it."

◆

The Prospects are Good for a large yield of honey this year, if we may judge from the reports we have been receiving the past few weeks. *Gleanings* said, in its issue for June 15th, that "Everything seems to indicate a big honey crop this summer." We hope that the final results may be as good as are the indications, and that bee-keepers may this year be well repaid for the great patience they have exercised during the past four or five poor honey seasons.

◆

The Michigan Apiarian Exhibit at the World's Fair will yet do credit to that great and progressive State. Bro. Cutting is pushing matters as rapidly as possible, and if he can get the hearty co-operation of all the wide-awake bee-keepers of Michigan, success will be assured. Here is a letter we have received from him, which should be carefully noted:

> In carefully looking over the statistics of the different agricultural products of the United States, I find that Michigan stands at the head in many products. It is conceded that Michigan produces some of the finest honey, and that her exhibits of honey have never been excelled in this country.

So great has been the demand for Michigan honey that all old honey was sold last fall, and it was impossible to procure a suitable exhibit for the World's Fair.

I have just returned from Chicago, after making final arrangements for an exhibit of Michigan honey, wax, etc. To make that exhibit, I must appeal to the honey-producers to come forward and lend a little help. The amount granted for a honey exhibit, by our State Commission, was so small that it is impossible to buy honey enough to make a suitable exhibit worthy of Michigan, but if *you* will *lend* just a little of your assistance, we will be enabled to make up a fine exhibit.

I would like to correspond *at once* with any honey-producer in Michigan, and will give all particulars. Let us all unite in getting up a fine exhibit, and when you go to the World's Fair you will be proud to find "Michigan, my Michigan!" well up in the front rank of honey exhibits.

Tecumseh, Mich. H. D. CUTTING.

As the time is short, action should be taken *now*. Bro. Cutting has the promise of several lots of nice honey. He is working hard to make a success of the matter, for a fine honey exhibit will help the sale of honey all over the country. It will not only help the producers, but publishers and dealers. It is an opportunity that must be improved by all. It will show the people that PURE HONEY is produced, and that they can procure it in its pure state. Let every bee-keeper help to call attention to the honey exhibit made in the Agricultural Building at the greatest Fair on earth, and thus *educate* the people in the sweetest and purest sweet produced.

Purifying Dark Beeswax.—The *Progressive Bee-Keeper* gives the following directions for purifying dark wax, that may help some of our readers who have desired to know how to do it:

> If you have any dark beeswax, put it into a tin or iron boiler, get it as hot as you can without boiling over, pour off in a wooden vessel of sufficient size to hold the wax—a water bucket for a small lot, or a barrel for 100 pounds or more. After you get it into the wooden vessel, add to the wax ¼ pound of sulphuric acid to every 50 pounds of wax; let it settle for 30 minutes, and dip off in small vessels for cooling. When cooled it will be of a bright straw color. The acid can be obtained at almost any drug-store at 20 cents per pound. One-fourth pound will purify 50 pounds of wax. Try it, and get from 2 to 5 cents more per pound for your wax.

Read our great offer on page 5.

The Winter Losses of bees the past winter were not as great as was at first supposed. Here is what Bro. Root says about the matter in *Gleanings* for June 15th:

> In our issue for May 15th we called for reports as to how the bees had wintered. The first question was this: What percentage of your bees have wintered? and the second, What percentage of the bees in your locality, as nearly as you can estimate, have wintered?
>
> By summing up all the reports that have been received within the two weeks just past, we find the total aggregate is 77 per cent. to Question No. 1; for No. 2 the per cent. is only 57. This is much better than we expected it would be, as it seems the losses were not as heavy as the reports seemed to indicate early in the season.
>
> The greatest mortality seems to have been in New York, Indiana, Wisconsin, Illinois, Ohio, and Michigan, in the order named. Throughout the whole South there seems to have been, as usual, but little if any loss, and that only from starvation. The reports were not as numerous as we could have desired, yet they are sufficiently so to give us a very fair idea of the condition of bees througout the country.

Samples of Foundation we have received from Mr. W. H. Norton, of Skowhegan, Maine. They are very fine, indeed, and show what superb work is being done now-a-days in the manufacture of comb foundation.

German Writing, we find, is not one of Dr. Miller's many accomplishments. On page 775, we made some reference to one of his contributions to the *Centralblatt*, a German bee-paper, but the following letter explains how it happened to be published in such "fine German language:"

> MARENGO, Ill., June 23, 1893.
>
> DEAR EDITOR:—That communication in the *Centralblatt*, of which you speak on page 775, "Written in as fine German language as any one could wish for," when it entered the post-office at Marengo was written in fairly good English. Do you suppose the salt sea air, as it crossed the ocean, changed it to German? I strongly suspect that Herr Lehzen, the able editor of the *Centralblatt*, took liberties with that manuscript, and that the "fine German" is his. But as I am not one of those who insist that an editor must make no change, and that everything must be published *just as written*, I can find no fault.
>
> The truth is, that I wouldn't be sure of writing even a very short sentence in German without making such ridiculous blunders that it would be dangerous to pri them in a German paper for fear of killi off some of the German population

laughter. I can neither write nor speak German, and it is only by slow plodding with a Dictionary in hand that I can make out some of the good things in the German bee-journals.

Now you see what you've done with your careless editorial, for if you had kept still I might have gotten up a reputation as a German scholar, but you have put things in such shape that I didn't dare to keep still, hence this expose. C. C. MILLER.

The Doctor can't imagine how sorry we are that we were so "careless" as to lead him into almost a compulsory explanation. But if "confession is good for the soul," he ought to be a happier soul now than before he wrote the above letter. Of course our previous editorial was intended as a partial pleasantry—not a "scientific" one, however. We also wished to show how hard the worthy President of the North American Bee-Keepers' Association was working to get our foreign German bee-brethren to attend the convention here in Chicago on Oct. 11th, 12th and 13th.

Yah, dot ish goot!

You didn't know we could talk German like that, did you? But we don't think we had better try it any further, for fear that *we*, too, would feel that an explanation was necessary.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

George W. York, Chicago, Ill.........	$1.00
Dr. C. C. Miller, Marengo, Ill.........	1.00
M. C. Godfrey, Dorsey, Nebr.........	.25
John P. Weibler, Lombard, Ill........	.25
L. E. Fountain, Garrett, Ind..........	.25
A Friend, Juneau, Wis................	.25
Total...........................	$3.00

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Brood-Frames from Diseased Colonies.

Will brood-frames that are half full or more of honey of last year's crop, spotted some by bees that had diarrhea, do to put in for a new swarm?

Kingsley, Pa. T. J. TIFFANY.

ANSWER.—Yes, such combs can be given at any time to old colonies that need them, or to swarms.

Commission Paid for Handling Honey.

What is the usual percentage of commission paid for selling comb honey if all freight charges are paid by the apiarist himself? Also the commission on extracted honey? O. A. CUSTER.

Lebam, Wash.

This question we referred to Messrs. R. A. Burnett & Co., who are "commission merchants," and they reply as follows:

The following are our rates of commission that went into effect January 1st, 1893. (Previous to this date our rate was 5 per cent. on consignments of all sizes.):

COMB HONEY, where gross proceeds of consignment fall short of $100, commission is charged at the rate of 10 per cent. Where the gross proceeds of a consignment exceed $100, commission is charged at the rate of 5 per cent.

EXTRACTED HONEY is governed by the same rule.

Our reason for changing to a 10 per cent. rate on the small lots, shipments, or consignments, was that the small invoices cost us much more to handle and dispose of than the large, in proportion to the cost of the whole.

1st. The consignment, small or large, takes same number of entries through the various books.

2nd. Small lots have to be peddled out in the single package way, as they seldom grade or class with other small lots, and as many packages of each have to be examined to effect a sale as of a large lot.

3rd. The best buyers want a lot to run uniform in cases, color, quality and style.

4th. It aids in breaking up the custom of some producers, of sending a few cases at a time. A large shipment is less liable to be injured in transit than a small one, and often brings a little higher price.

5th. We do not vary from the rates above mentioned, whether freight is prepaid or otherwise.

R. A. Burnett & Co.

Increase, Not Honey, Wanted.

Please tell me how I can increase my bees. I have a colony of Italians on six Langstroth frames, but they will not swarm, on some account, I do not know what. They are getting plenty of honey and pollen for building up on. They also build queen-cells on the comb where there is no brood, for some cause or other. I want to increase my bees. It is not the honey I want, but more bees.

Porter Feathers.

Whitesburgh, Tenn.

Answer.—The probability is that before this is in print your bees will have swarmed. Their building queen-cells is probably preparatory to swarming, although sometimes when queen-cells are built it does not indicate contemplated swarming but supersedure of the old queen.

If they do not swarm, one way that will be a good deal like natural swarming is as follows: Open the old hive, find the queen, set the comb containing her, with its adhering bees, in a new hive, and put this new hive on the old stand after removing the old hive to a new stand 5, 10, or more feet away. Put a frame of empty comb or foundation in the old hive to replace the frame of brood taken away, and fill up the new hive with empty combs or frames of foundation.

For the next day or two all the field bees, on their return from the fields, will return to the old stand and join the queen, and the bees in the old hive will rear a queen. If you operate at a time of day when the young bees are out at play, they will also join the new swarm, and if you want to make still more sure of having the new swarm strong you can shake or brush the bees from part of the combs in front of the new hive. There is just a little danger that in this last operation you may make the old colony so weak that it cannot properly take care of its brood.

If the new swarm be made strong, you may count on its doing fair work in the surplus chamber. But as you want bees and not honey, you will not care to do anything to strengthen the new colony.

If you want to increase still farther, you can form one or more nuclei by taking from the old hive two frames of brood and putting into a new hive. See that no hive is left without a queen-cell. This last change should be made nine or ten days after making your first swarm, unless there were queen-cells present at that time, in which case you must make your nuclei sooner, as the first queen that hatches is likely to kill all the remaining queen-cells.

Another way which may ensure better queen-cells, is to leave the old hive on the old stand, taking from it two or three frames of brood with adhering bees, also the queen, and putting them in a new hive on a new stand. This will leave the old colony strong, and before the first queen-cell has time to hatch, say in nine or ten days from the time you made the change, you can divide it up into two, three or more parts, forming a nucleus with each part. The bees from this queenless colony will remain on any new stand much better than bees taken from a colony having a laying queen.

It isn't a hard thing to make a number of new colonies from an old one, but it is also a very easy matter to have them so weak that none of them will live through the winter. Be sure, then, not to make the mistake of trying to increase too rapidly—a mistake that you are pretty sure to make in spite of any advice to the contrary.

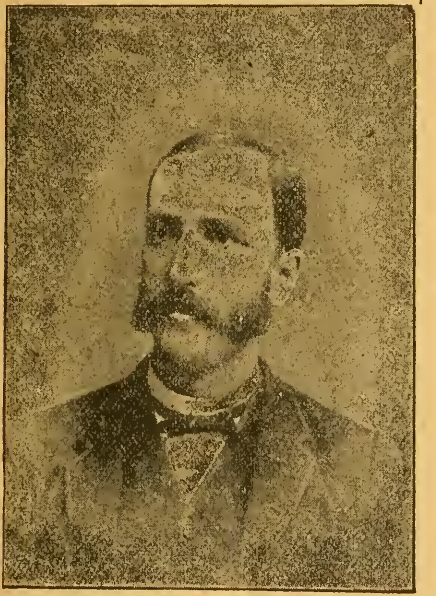
Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the Bee Journal for one year, for $1.15.

Bicycles are getting to be very common now-a-days. We have two for sale, and any one wanting a bargain in a good bicycle, should write to the office of the Bee Journal.

BIOGRAPHICAL

W. Z. HUTCHINSON.

Our friend and co-laborer in apiarian journalism, W. Z. Hutchinson, was born in Orleans county, N. Y., on Feb. 17, 1851. He was the eldest child, and when four years old, his parents moved to Michigan, on a farm in Genesee county, where he remained until a few years ago, when he went to Flint, Mich., where he now resides and publishes the *Bee-Keepers' Review*.



W. Z. HUTCHINSON.

An interesting reminiscent account of himself Bro. Hutchinson gave to the readers of the *Review* for December, 1892, from which we extract the following paragraphs:

One great difficulty in my youth was the lack of opportunities to earn money. The first money that I earned to amount to anything was earned trapping. As soon as I had money to use I began buying books. This was after I had reached my teens. I always had a great desire to know the *reason of things*, to delve into mysteries, to know something about common things that everybody did not know, hence I had books on swimming, on trapping, on phrenology, physiogomy, mesmerism, physiology, etc. Of all the old books that mother had, I think none were studied with more interest than two on natural philosophy. It was this trait of mine that led me into learning short-hand.

At 17 I began teaching school. I taught seven terms. I liked teaching very well, but it was too trying on my "nerves." From the time I was 18 until I was 25, I did a great deal of canvassing. I worked mostly at selling picture-frames.

When 19 I was teaching school one winter and "boarding round." I came across "King's Bee-Keepers' Text Book." Here was a new mystery—one of those things that I delighted to revel in. Upon inquiry I learned that the owner had bees down cellar. We went right down to see how they were wintering. The next summer I passed three days, while on a canvassing tour, at the house of this friend. It was in swarming-time. The enthusiastic part of my nature was roused to a pitch that I think it never before had reached. I began studying bee-keeping in real earnest. Every bee-keeper was questioned; every scrap of information that could be found in papers was pasted into a scrap-book.

When I was about 20, as I was peddling, I made a sale to a farmer living 16 miles from my home. After making the sale, I begged to be allowed to stay all night, although it was then only 3 or 4 in the afternoon. I had discovered a row of brightly-painted hives in the rear of the house, and I wanted to "talk bees." I stayed. In a few months I went there again to "talk bees" and I stayed two days. I kept going to "talk bees" until finally the age of 22 found me "talking love" to Miss May Simpson, the farmer's only daughter.

Two happy years of courtship ended in a marriage that has proved all I ever hoped or dreamed. During those two years I several times walked those 16 miles to see "my girl." I walked to save livery hire.

The next year after we were married

I began bee-keeping with four colonies. Oh, the enthusiasm of that first year with the bees! I think that I learned to recognize every comb in my little apiary. The bees were in the American hive. The bodies were painted white and then "marblized" by moving a smoking lamp under the paint while it was fresh. Each cap was painted a different color. The hives stood four feet apart in a row. On the south of each hive were planted three or four sunflowers for shade. The marblized hives with their different-colored covers nestling in under the green leaves of the sunflowers surmounted with their great yellow blossoms formed a picture that will ever linger in the memory.

To a distance of six feet in front of the hives the turf was removed, *a la* Boardman. Every few mornings I swept the ground in front of the hives with a broom. I did this early in the morning for I really didn't want to be laughed at about it. I made $60 profit from the bees that season.

"W. Z." at 18.

How did I come to start the REVIEW? Well, as I advanced in knowledge of bee-keeping, I was often struck with the amount of matter that was published from which it seemed there was little information to be extracted. At this time I was also reading the *Rural New Yorker*. It occasionally gave special numbers just the same as the *Review* has been doing. From these sources came the idea of making the *Review* what it is. For at least three or four years before beginning the publication of the *Review*, I had its publication in mind, and was planning for the work. Owing to the poor seasons and sickness that have come since the *Review* was started, I have seen many times when it seemed as though I had come up squarely against a stone wall, but I kept on going, and at last the "stones" would tumble this way and that, and I would go on again.

We do not remember the exact date when we first met Bro. Hutchinson, but it must have been at least eight years ago, when he came to Chicago to attend a bee-keepers' convention.

The *Review* is doubtless Bro. Hutchinson's best work, being the result of years of patient and laborious toiling, and planning, and at times overcoming of seemingly insurmountable difficulties. But he has finally gained the victory, as is clearly shown by the following item, taken from a recent number of the Flint *Globe:*

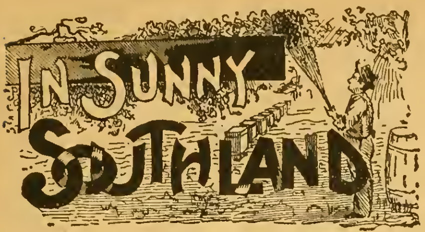
A FLOURISHING INSTITUTION.

W. Z. Hutchinson, publisher of the *Bee-Keepers' Review*, in the First Ward, has had his printing-office in what was originally a family bedroom in his house. He is just now finishing a room in the west wing of the house, 26x18 feet, on the first floor, which he will use for his work-room and office. It is well lighted and easy of access, and well adapted to the purposes for which it is intended. Mr. Hutchinson sets the type for the *Review* himself, but the press-work is done in the *Globe* office. It is now recognized as among the leading apiarian publications in the United States, and its financial success is no longer a problem. It is a periodical that reflects credit on Flint, and stamps Mr. Hutchinson one of the best authorities on bee-culture in this country.

Of course Bro. H. needs no introduction to the older readers of the BEE JOURNAL, for many of them have met him at conventions, or at Fairs where he delights to capture cash prizes and the highest premiums offered for honey and bee exhibits.

Mr. H. is the father of four lovely daughters—Nora, Cora, Ivy and Fern—the youngest of which is a little less than a year old—a "golden-haired, violet-gray-eyed baby"—and we think its papa considers it the little "queen" of the family. No doubt it rules, and its every demand is granted without question.

"Bees and Honey"—see page 3.



CONDUCTED BY
Mrs. Jennie Atchley,
GREENVILLE, TEXAS.

The Honey-Plants of Northern Texas, and How to Utilize Them.

Read at the late Texas State Convention
BY DR. WM. R. HOWARD.

(Continued from page 813.)

Flaxweed (*biglovia virgata*, D. C.) blooms about the first of August, continuing until frost, but is not visited by the bees until later, when other and better flowers are scarce; the honey is bitter and pungent.

We have another plant of the genus *solidago*, or a closely allied genus, which I have never taken time to determine satisfactorily, which blooms in August, and furnishes an inexhaustible quantity of honey until frost. There are hundreds of acres of this plant in this country, common in old, vacant fields and waste-places, etc. With a favorable fall bees will get very sick from it. The honey is so pungent and fiery that no one can eat it; even the smallest portion of it will create a burning sensation in the mouth, throat and stomach. I have seen persons who have eaten not more than a few ounces, and it caused such distress that vomiting followed by violent purging, lasting several hours, was the sequel; persons who could eat pure honey with impunity, and were fond of it, too. Such is the character of this honey that most persons have supposed it to come from pepperwood (*A.spinosa*), the taste of which is very much like prickly-ash (*xanthoxylum*). The honey is of fine appearance, being as transparent as water, but of medium consistency, and slow to granulate.

It will remain liquid from six to ten months, and may be readily extracted from the combs after twelve months. I know of no method by which the pungency may be removed; I have tried boiling to no purpose. I made some experiments during the years 1880, 1881 and 1882, testing the abundance of this flow. I extracted all of the available honey in my yards during the last week in July in 1880 and 1881. I removed all the combs containing sealed honey, supplying comb foundation in order to get a greater number of combs, to be utilized during the rush and honey-flow for the following seasons; in 1881, each strong colony filled from 8 to 10 frames with this honey during the season; this honey was used in securing strong colonies early in the following seasons. My bees wintered well on this honey.

I will mention one more plant which deserves especial attention, and is easily grown, I refer to sweet melilot, or sweet clover; it is not a clover nor in any way related, but is commonly called by that name. You are all so well acquainted with this plant that it is unnecessary to describe it. When we have suitable seasons this plant yields an abundance of honey, and is most frequented by the bees in the afternoon. The honey is first-class in quality, having a peculiar aromatic flavor, which is very delicious. I once had my entire horsemint crop flavored with this honey.

There are many other plants of minor importance which time forbids mentioning. My yards were run for extracted honey, except one yard of black bees consisting of 20 or 30 colonies which was devoted to the production of comb honey exclusively.

My method of obtaining strong colonies early in the spring for the ratan-vine yield, was to encourage early breeding by feeding liquid honey, or furnishing honey in the combs near the brood-nest in good worker-comb, so that as fast as the honey was consumed, the combs were filled with brood; by this method I have had my colonies all strong by the time the flow came on.

The most difficult problem was to prevent swarming. A good plan is to go over the yard about the time the honey-flow begins in good earnest, and remove all the queen-cells, place all sealed brood away from the center of the hive, and give plenty of room for the queen, by inserting empty worker-combs, which may be utilized for brood. If this is done in the afternoon it will afford the queen a better opportunity to utilize the space. The workers will fill every comb with honey as fast as the brood hatches. In a few days go over the yard and remove all combs containing sealed brood, as well as those containing honey, and place in the upper story, leaving the combs containing unsealed brood below. Three or four combs may be found in each hive, for the upper story; a number of hives are visited, and enough combs taken to fill the first upper story, replacing in each case with good worker combs. Care should be taken not to remove sealed brood enough to weaken the colonies.

Go over the yard in this manner, again and again, until every hive is made "two story." Empty combs may be used above and below where practicable. All sealed combs of honey may be removed to the honey-house, and replaced by empty ones, or good wired comb foundation; when comb foundation is used, put it in the lower story in the brood-nest, and it will be drawn out and filled with brood, which toughens it, making it less liable to break during extracting.

Should you run short of combs you may take time to extract and return the combs. Managed in this manner we give plenty of room, and secure the largest possible yield, and never carry sealed brood to the extractor or honey-house.

Some complain that the queen gets into the upper story; it makes very little difference where she is now, as we do not need her work at this time if we have strong colonies; and, besides, she cannot deposit eggs in the upper story if every cell has some honey in it, which is nearly always the case if this method is followed, and the extra amount of room given prevents to a great extent the swarming.

If a swarm issues before the second story is put on, during a heavy honey-flow, by the exclusive use of clipped-wing queens, the queen is captured and caged, and the parent hive moved to one side, and a hive containing empty combs placed on the old stand, to which the bees will usually return in a few minutes, and as they enter the queen is allowed to accompany them, a second story is put on, and the contents of the parent hive lifted to it, after destroying all queen-cells, and young queens should any be present. This usually settles the swarming fever of this colony, for the time being.

Right here allow me to say that this is the manner in which I manage all natural swarms when I desire to increase my stock; except that I remove at once the newly-hived swarm to a distant part of the yard, replacing the parent hive on its original stand; and should it swarm again, after the bees are all out, I overhaul the brood-chamber, removing all queens and queen-cells, disorganize the brood-nest, and return the swarm to the original hive, and place it on the old stand. After the first brood hatches from this young queen, and proves satisfactory, her wing is clipped. Each hive, or stand, is numbered; and by having universal covers, the same cover may be used for any hive that may be placed on the stand.

SOME HARMONIOUS BEE-NOTES.

Never waste time in wintering weak colonies.

Never take from a strong colony in the spring to build up a weak one, as you may lose the work of both of them.

Never keep a superannuated queen in your yard.

Never leave a newly-hived swarm near the place where it clustered, as you may be surprised by its taking to the woods. Remove it to a stand at a distant part of the yard at once, whether all the bees are in or not.

Strong colonies protect themselves against robbers and the bee-moth.

Strong colonies at the proper time insures a successful honey harvest.

A large number of extra combs are necessary where extracted honey is our aim.

Black bees are better architects than Italians, and can gather as much honey; but the docility of Italians allows us to handle four colonies where we can one of the blacks.

Ft. Worth, Tex.

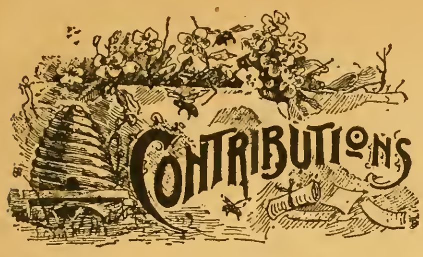
* * *

Italians Ahead of the Blacks.

MRS. ATCHLEY:—The honey harvest here will soon be over, and I do not think there will be over half a crop, but I will send a report from this neighborhood later, after the final round-up. The queens I reared from the old queen last season have turned out to be fine honey-gatherers. Several of their colonies have filled 216 one-pound sections each, and are likely to fill another super, while some of the blacks that were stronger in the spring than the Italians have only put up 24 pounds so far. The new queens are doing very well; their bees are beauties—the best marked I ever saw. I will not be able to test them as honey-gatherers this season, as I am using them to rear queens, as I intend to re-queen my apiary entirely.

JOHN COLLINS

Elsinore, Calif., June 15, 1893



How to Cure the Foul Brood Disease Among Bees.

Written for the American Bee Journal
BY WM. M'EVOY.

This disease has destroyed hundreds of apiaries at all times, in almost every land where bees have been kept, and it is to-day making its deadly march unchecked through the bee-yards of the world.

For 17 years I have warned the bee-keepers to keep all dead and putrid matter out of their colonies, so as not to cause foul brood, and while I have been warning and holding up Death's head and the cross-bones, the professional guessers, who were not practical bee-keepers, have been encouraging the wholesale spread of the disease by saying that rotten brood in hives of bees would not cause foul brood. Such teaching as that has caused thousands of bee-keepers to be very careless, and when the disease has broken out in their bee-yards, it was left to run its course to the ruin of their apiaries, and all others in the same localities. It is only the very few among many thousands of bee-keepers that have succeeded in curing their apiaries of foul brood after it got a good start in their bee-yards, and the owners left to themselves to manage the curing.

I will now give my methods of curing foul brood, which cannot fail when followed exactly as I order.

In the honey season, when the bees are gathering honey freely, remove the combs, and shake the bees back into their own hives in the evening; give comb foundation starters, and let them build combs for four days. In the evening of the fourth day, remove the comb, and give foundation to work out, and then the cure will be complete. Fill an empty two-story hive with the combs of foul brood that have been removed from two or more diseased colonies, close them up for two days, and shade them from the sun; after that open the entrance, and when most of the brood is hatched, remove those combs, and give the bees starters of foundation in a single hive, and let them build combs for four days. Then in the evening of the fourth day, take out those new combs, and give them foundation to work out.

Let it be remembered that all of these operations should be done in the evening, so that the bees will become settled down nicely before morning.

Before extracting from the diseased combs, all the combs that were not sealed *must be cut out* of the frame, or some of the decayed brood will be thrown out with the honey. Then after cutting out the unsealed comb, uncap the sealed honey, extract it, and bring it to a boil.

All the foul combs, and the new combs that were built in the four days, must be made into wax, and the dross from the wax extractor *must be buried*, because what runs with the wax would not be heated enough to kill the spores, and if it was thrown out where the bees could get at it, it would start the disease again.

When the diseased brood that was placed in the two-story hive is hatched, and the bees are given full sheets of foundation, then they should at once be given a queen-cell ready to hatch out, or a young queen; then every thing will be all right.

The empty hives need no boiling, scalding, or disinfecting in any way, and are perfectly safe to use, no matter how bad the disease may have been in them; and I have always got the curing done in the same hives. But as the frames get more or less daubed with the diseased honey when the combs are cut out of them, I always order the frames burned as soon as the combs are cut out, because it doesn't pay to waste valuable time fussing and cleaning old frames, when nice new ones are so cheap.

Where an apiary is diseased so badly that the colonies have become weak, then all the combs, both in and out of the hives, should be made into wax at once, and all the colonies doubled up at the same time, as it won't pay any person to waste time with weak colonies.

In some bee-yards I have put three and four colonies in one, to get fair-sized colonies to start on.

When the curing is to be done before or after the honey season, the greatest caution is to be used so as not to start robbing. The curing can be done just as well before and after the honey season by feeding plenty of sugar syrup in the evenings, so the bees will work out the starters of foundation, and store the diseased honey in them, that they took from the old, diseased combs; and when the new combs are removed the fourth evening, and the foundation given, the feeding must be continued to get the foundation worked out and filled with plenty of good stores for winter.

When I find apiaries of foul brood at the close of the honey season, I get the queens caged in all the weakest colonies for about ten days, so that no brood can be started to become foul. I then get the owners to take the brood out of the strong colonies, and tier it up on the weak colonies with the caged queens. Then give the colonies starters as soon as the combs are removed, and feed sugar syrup in the *evenings* for four days; then remove the starters for foundation. Then at the end of ten days I get all the combs taken from the weak colonies that have the caged queens, and shake the bees into a single hive, give starters of foundation, let the queens out of the cages, and feed sugar syrup in the *evenings*, and remove the new combs the fourth evening for full sheets of foundation, and continue the feeding until all is in good condition. The colonies that were weak when the brood of other colonies was tiered up on them, will be very strong from the quantity of bees hatched out during the ten days.

I have to use considerable judgment in curing many foul-broody apiaries, so as to make the cure as profitable as possible, and have every colony a good, strong one when the season closes.

It is a very easy thing for one to cure a foul-broody apiary, and soon put it in good order, no matter how bad it was when I started to fix it up in good shape to cure it. But I have found it a very hard thing to handle all sorts of men so that they would cure, and do as I ordered them.

When a few colonies in an apiary are found with foul brood at the close of the season, the owner can very easily fix them up all right by removing the combs in an *evening* in October, when the queens *have done laying*, and giving *sealed* combs from *sound colonies*. If the owner has no sealed combs, he must feed until the bees in the sound colonies seal them for that purpose, and then when given to the foul colony the bees won't have any place to store the foul honey they took from the diseased combs, and then they will have to keep it until they consume it; and with no place to start brood, the queen stopped laying, and cold weather coming on, the bees will have gotten rid of the diseased honey long before brood is started again. Every bee-keeper should have, every fall, plenty of combs sealed over like the best of section honey. I have hundreds of them every fall.

I know of many failures in Ontario where the drug system has been tried, and I have many private letters from several localities in the United States where it has been a complete failure. I never knew one cure made by the drug system, and why any man should speak of it as a cure when it is always a failure, is something I can't understand.

I will here warn all men not to waste their time in tinkering with any kind of drugs in a bee-yard; the best place for such drugs would be in the sea—only it might be a sorry time for the fishes.

The D. A. Jones' starvation plan will cure every time, but it is too hard on the bees, and completely unfits them for comb-building for a time, by making the bees very thin, lean and poor; and the starving sometimes almost ruins some of the queens for life.

I have been very busy, or I would have written up my method sooner. I have received many letters from the bee-keepers from all over the United States, asking me to write and tell them how to cure their apiaries of foul brood. I know by the number of letters that I get from the United States by every mail, that foul brood must be very prevalent there. I am sorry that I could not find time to answer their very strong appeals for help. I hope these men will excuse me, and save the AMERICAN BEE JOURNAL with this article in it, and also take this as an answer to their letters.

Woodburn, Ont., June 19, 1893.

Bee-Paralysis a Disease—Pulled Queens.

Written for the American Bee Journal

BY H. F. COLEMAN.

On page 627 Mr. Demaree gives it as his opinion that bee-paralysis is not a disease, but that it is caused by a vegetable poison. This has been my opinion until recently, but I am now convinced otherwise. I now have a colony badly troubled with it, and we are having the finest honey-flow I ever saw. Poplar is in its prime, and white clover is beginning to be fine, and it seems impossible that bees would gather any poisonous nectar—if any exists—at this time.

This case is the only case of bee-paralysis that I have ever noticed in the midst of a good honey-flow, but it has its lessons, and we may profit by them. I now firmly believe this trouble is a disease, and I am fearful that it is a contagious one.

My apiary is on a gently-sloping spot of ground, and on the hexagonal plan, with the hives eight feet apart. Last fall the disease made its appearance in one of the upper rows, and gradually worked its way downward, not missing a colony, until now the diseased colony spoken of is in the lower row. The diseased bees are driven out like drones at the close of the honey season, and will take shelter in any colony that will suffer them to enter; and as they are naturally driven down from the mouth of the hive, they are ready to enter the first hive below, and thus I account for the spread of the disease downhill, as in my apiary.

With good management, in keeping the queen laying, the diseased colonies usually come through, build up, and make good colonies, or at least this has been my experience; but with carelessness the result would be otherwise.

I give it as my opinion, and I don't think I am far wrong, that one-half, or more, of the winter loss in this locality is traceable to this disease. In the fall it so depletes the colonies that they easily succumb to the cold of winter, and if this be true, how essential it is that close attention be given at the proper time.

USING PULLED QUEENS.

Did you ever use a pulled queen in a colony of bees that had just cast a swarm? It works like a charm with me, and if you have never tried it, you would do well to do so. The plan is this:

As soon as the swarm is properly hived, go to a colony that has queen-cells ready to hatch, select a nice one, take it to the colony that cast the swarm, open the end of the cell, and let the young queen crawl out and go down among the bees, and your work is done.

The bees seem to think that this is the natural way of doing things, and will accept the young queen and be contented. You then have a queen six or eight days earlier than by waiting for one to be reared in the usual way, which is quite an item, whether running for bees or honey.

It is not every time, even after the first swarm in the season, that we can have cells ready to hatch when a swarm comes out, but in the swarming season we usually have them in some shape, and if we have none that are ready to hatch, we can still expedite the matter. The old colony will, as a general thing, accept any kind of a cell just after swarming, and by giving them a cell more advanced than those they have, we can get a queen earlier than by waiting for them to rear one in the usual way.

These things, of course, are not new to the experienced bee-keeper, but they are new to many, and are worthy to be remembered by all.

Sneedville, Tenn., May 23, 1893.

Are Bees Animals?—A Correct Decision Wanted.

Written for the American Bee Journal

BY DR. C. C. MILLER.

On page 752 a writer says, "Bees are not animals." Some time ago, I think the same statement was made in the *Canadian Bee Journal.* Occasionally, however, some one speaks of them as animals, and it would be a good thing if we could decide what is correct in the matter.

If we should hear some one say, "John has gone out to feed the animals," I think very few of us would think of bees as the things John was about to feed. Indeed, whether a wild or tame animal is spoken of, we are likely to think of some four-footed affair.

Let us see what the Dictionary says. Turning to the word "animal," we find an animal is "an organized living being endowed with sensation," etc., the full definition clearly taking in a bee as an animal. A second definition is: "One of the lower animals, a brute or beast, as distinguished from man; as, men and animals." But while this gives a use of the word that throws out man, it does not throw out the bee.

Starting at a different point, we find in the Dictionary that a bee is an insect; that an insect is one of the Insecta, and that Insecta in its most general sense includes the Hexapoda or six-legged insects, and in a more restricted sense the Hexapoda alone; and we are distinctly told that bees are among the hexapod insects; and finally, on turning to "hexapod," we find it is an ANIMAL having six feet.

So if we are to take the Dictionary as a guide, I hardly see how we can deny that bees are animals. If any one can bring any kind of proof to the contrary, I should be glad to see it, for I confess to some prejudice against the common use of the word in that way.

Marengo, Ill.

Experiments in Apiculture Made in 1892 at the Michigan Experiment Station.

Reported to the Department of Agriculture

BY J. H. LARRABEE.

During the season of 1892 the branch Station for experimenting in bee-culture at the Michigan Agricultural College was continued at the expense of the United States Department of Agriculure, Division of Entomology, and of the Michigan State Experiment Station.

An effort was made to undertake a line of experiments closely connected with the practical work of the apiary. While all of the experiments undertaken have not given results of practical value, some have. Especially gratifying are the results obtained in the experiments upon the subject of wax-secretion and the evaporation of honey, for the reason that they were nearly free from those elements of uncertainty that must necessarily enter into nearly all experimental work in the apiary, such as season and condition of bees.

When the bees were taken from the cellar, on April 18th, they were in rather poor condition, due doubtless to the dampness of the cellar and the character and amount of the stores. The loss during the winter and spring was about one-third of the number placed in the cellar.

In May and June the bees of the whole apiary were transferred from the old hives into modern dovetailed hives, and from the old reversible frames, of three distinct sizes, to the new, wide, thick, top-bar frames of the Langstroth size. In this operation all drone-comb or other imperfect combs were rejected and rendered into wax. By this change the apiary was placed upon a modern footing, the hives made uniform, the operations and manipulations of the apiary rendered more rapid, and its beauty and value increased.

The spring was very backward and rainy. During fruit-bloom the bees flew but little, and their influence upon the fertilization of the flowers of our fruits is seen in the almost complete failure in this vicinity of all tree fruits and others largely dependent upon the bees for the dissemination of pollen. As the rainy, cloudy weather did not cease until about the first of July, the early part of the clover bloom was lost to the bees. No supers were put on until July 8th, and at that time strong colonies were swarming, with almost no honey in the hives. All of the white surplus was taken from basswood, which yielded well. July 25th the season for white honey closed. A little surplus of late honey was gathered during August, and the bees filled up the hives well for winter. A yield of about 25 pounds of surplus per colony was obtained, and there are now in the apiary 55 colonies in excellent condition for winter.

CARNIOLAN AND PUNIC BEES.

During the winter of 1891 the apiary was entirely re-queened, only a few old queens being reserved for breeding. This season the opportunity was taken to replace all those of the former year's rearing that had proven themselves inferior. A number of Carniolan queens were introduced, and queens bred from them. Added familiarity with the cross of the Carniolan bee with the yellow race increases my satisfaction with their valuable traits. They have proven themselves equally as desirable as either race in its purity, and they have some points of superiority.

A test was made of the claims advanced for the Tunisian or so-called "Punic" bees. During the early part of the season they exhibited no traits that would distinguish them from the native black bee, showing the same nervousness under manipulation. They build large numbers of queen-cells, and do not cap their honey with that peculiar whiteness characteristic of the common black bee. After the close of the honey season they best showed their origin and distinctive peculiarities. Whenever attempts were made to handle them they became exceedingly angry. This trait of excessive irritability seems to be their most distinctive mark. As no point of superiority was discovered, their several manifest defects make them a race not to be recommended as desirable for introduction among our American bee-keepers.

REMOVING THE QUEEN TO PREVENT SWARMING.

As the bee-keeping industry develops, and new methods and devices come into use, each tending to lower the price of the product, an increased tension is placed upon the apiarist in an effort to manage large numbers of colonies to increase his annual yield. The natural tendency of bees to increase by swarming, and the care and attention occasioned thereby have given rise to various plans for its prevention or control. One of the best of these plans, yet one little used, is outlined in the following, the value of which, at the suggestion of Mr. Aikin, of Loveland, Colo., I undertook to test:

Early in spring two colonies were selected, as nearly alike in strength as it was possible to get them. They were kept at the same strength, the amount of brood in the hives having been equalized several times. The harvest did not open until about July 6th, and upon the 8th supers were given them. July 12th queen-cells were found partly constructed in colony No. 1. The queen was removed, and four days, and also eight days afterward, all queen-cells were destroyed. On July 25th (13 days after her removal) the queen was returned. This colony did not swarm at all.

The other colony (No. 2) was allowed to work without interference, and it was not until July 21st that they swarmed. As the harvest from linden was about closing, the swarm was returned, and all queen-cells destroyed in the hope that they would not attempt to swarm again before the close of the season. They did not swarm, yet it may be supposed that this interference with their instincts tended slightly to decrease their energy. The results in total amount of honey gathered are as follows: No. 1 gained in weight 37 pounds between July 6th and 25th, and No. 2 gained 46 pounds during the same time.

If from the total gain of No. 2 we subtract 5 pounds as the weight of brood it contained in excess of the brood in No. 1 on July 25th, we still have 4 pounds as the amount of honey gathered by No. 2 greater than the amount gathered by No. 1. These colonies were both worked for comb honey with like treatment of supers.

This experiment is valuable testimony to prove that the removal of the queen to prevent swarming does somewhat affect the amount of honey gathered by the bees. The supers showed even a larger difference in the amount of honey stored in the sections for the reason that where the queen is absent the bees fill the brood-chamber with honey. When the queen is returned this will, to a greater or less extent, be removed to the sections. Although the interference in this manner, with the economy of the hive, probably always reduces the amount of honey stored, yet because of the lessening in the labor and watching necessary during the swarming season, I deem it advisable to follow this method when any similar plan seems necessary.

Agricultural College, Mich., Nov. 17.

(Continued next week.)

Some Facts About those Hybrid and Black Bees.

Written for the American Bee Journal

BY "MINNESOTA."

I note the criticisms by Mr. Jas. A. Green, on page 691, on the answers to my question, Query 867, on page 494, and I desire to reply by giving a brief history of my bees.

I follow diversified farming, and took up bee-keeping on account of poor health, thinking it would add to my income, and was adapted to my business.

I began with 4 colonies of hybrids (a cross of the Italians and blacks) some 12 years ago. For about 4 years following, my neighbors all around me had black bees. During a poor season my neighbors' bees all starved to death; since that time there have been no bees kept within 4½ miles from me. I do not restrain drone-rearing, or kill them; during the swarming season there are plenty of them in the air. Wild bees cannot winter here. Have not I a good reason for saying that my bees have reared queens from their own progeny?

How do I know that my bees are good, comparatively speaking, as Italians? By comparing their. product and its quality with other apiaries equally situated.

There has been a general complaint for the last few years of a partial failure of the honey crop. At our State Fair I have been asked, "Why don't you bring your honey here? It has been a failure throughout the State."

I took some comb honey, stored by these hybrids, to the Fair last year, and took the first premium on the most attractive display of comb honey, and first on the display of 20 pounds of comb honey, quality and manner of putting up for market considered. I mention this to show that my hybrids are as good as Italians, as to the quality of their product.

With the exception of the poor season mentioned, my bees have always paid me a fair profit on the amount invested in them. They have done so well that I have hesitated about introducing new and strange blood among them. The object of my query was to find out from the respondents how long I could safely in-breed without deterioration.

I have found out from experience that for all practical purposes in this State, some grades of animals are equal, if not superior, to pure bloods. Why not bees?

I will acknowledge that I have paid

but little attention to the breeding of my bees. They have done it better than I could have done, and I very much doubt if Mr. Green could have improved on their methods.

The fact of the case is, my bees have a good location; they take good care of themselves without any tinkering or fussing on my part; they give me good, paying crops every year, and I am one of the old fogies—willing to "let well enough alone."

Wilmar, Minn.

* * *

Revolving Hive-Stands a Failure as a Non-Swarming Method.

Written for the American Bee Journal

BY B. TAYLOR.

In the BEE JOURNAL of June 1st, I notice an article from the pen of R. F. Holtermann, on methods used for prevention of swarming, in which he says:

> Upon a post rested two pieces of timber, the pieces crossing one another over the post, the whole forming four arms which could be revolved upon the post. At the end of each arm, and upon the arm, was a colony of bees, and from the first day the bees could fly, the stand was given one-quarter turn. In this way the flying bees, every day they flew, went into a new home, and the swarming impulse was kept down.

Nine years ago I commenced experiments to prevent swarming, or at least to control increase. My first move was to make some 50 hive-stands long enough to hold 2 colonies each, and upon these stands I placed one colony of bees in the spring, where they remained until swarming time. When they swarmed, the parent colony was moved to the vacant end of the stand, upon which it stood, with its entrance turned exactly opposite from its former position. The new swarm was hived in a new hive, on starters, and placed on the stand where the hive of the parent colony had previously stood. Thus the two hives faced in opposite directions, the new swarm getting all the field bees, making it very strong for storing section honey.

I should explain here that this new swarm was hived in one section of my double hive, containing 10 frames 6x13½ inches, and section supers added, to give the requisite room, a queen-excluding honey-board being placed between supers and hive.

In six days from the time of swarming all queen-cells were cut from the parent colony but one, and the old colony allowed to rear a young queen, provided I had not given it a newly-hatched queen at the time of swarming.

The two hives were left until the end of the white honey-flow, when all the sections were taken from the new swarm, the queen removed (unless an extra good one), and the old colony, with its young queen, placed on top of the new swarm; a queen-excluding honey-board placed on top, and one or more sections of my small hives on top of all, to have their brood-combs filled with dark honey, for extracting, or to be kept for fall or spring feeding, as required. Let me here say that this is the most profitable method of feeding that I have ever tried. Just give each colony, in the spring, from these reserved and nicely-sealed combs, enough for all emergencies; cover them warmly, and then let them alone until time for putting on the sections, and the colonies with their young queens and ample stores will build up better than any way I have ever tried.

I will not give the various steps by which I advanced my experiments from this starting point, until eight years after, when they culminated in my revolving hive-stand of last year. I expected the revolving stand to prevent swarming, and that was the only motive for making it. My stand held 6 colonies, and it was revolved one-sixth of the way around each day, during the entire season. The bees had a new hive each day, and worked in complete harmony with a *new queen each day;* but when a colony commenced queen-cells, the next colony, and the next, and the next, each in turn pushed the cells forward to completion, *instead of tearing them down,* as I had expected, and my hopes of a non-swarmer by this method was not only defeated, but I was entirely astonished to find that these 6 colonies swarmed three times more than equally good colonies in the house apiary, and 1½ times more than bees left undisturbed in the open yard. Let no bee-keeper waste one cent of money, or minute of time, on the revolving stand to prevent swarming!

But while I entirely failed to realize my expectations in preventing swarms, the revolving stand led the way to what I have full faith will, without machinery of any kind, entirely prevent swarming, with not more than five minutes' work to each colony per week, and with hives less costly than common, plain frame hives.

I expect to start an out-apiary of 50

colonies that I can, by visiting one-half day each week, run with the very best results, without an attendant, or the danger of losing a single swarm, and with less expense for fixtures than ordinary hives. I now have the hives for my new method completed, and bee-keepers will hear more about the result hereafter.

Forestville, Minn.

Benson Lossing, L. L. D., the distinguished historian, has said that Miss Holley (more familiarly known to a loving public as Samautha Allen, Josiah Allen's wife), "is a wise and efficient reformer; an acute and moral philosopher; a genuine humorist, and a most skillful limner of special phases of social life everywhere to be seen. Her 'epsodian' sermons are dramatic and incisive; her philosophy is self-demonstrative, and her humor always has beneficience, and not mere amusement as its prime motive. Her book, 'Samantha at Saratoga,' is genial, and not so keenly satirical like Cervantes, who set all Europe a-laughing the tom-fooleries of chivalry out of existence; like Holmes, who by a patriotic little poem saved the frigate Constitution from destruction; like Whittier, who dismissed from our statute books a barbarous law by the burning words of his 'Prisoner for Debt;' like Mrs. Stowe, who pierced the heart of the institution of slavery by her pen; Miss Holley's books are doing in a quiet way a great work for the promotion of needed social reforms. I know of no volume more healthful for perusal by the young and the old, the learned and the unlearned."

Read our offer of "Samantha at Saratoga," as premiums for getting new subscribers to the Bee Journal. You will find it on page 5 of this number of the Bee Journal.

Alley's Queen-Rearing book, or "Thirty Years Among the Bees," gives the result of over a quarter-century's experience in rearing queen-bees, and describing the practical, every-day work. By Henry Alley. It contains an "Appendix," showing the improvements made in queen-rearing the last four years. Very latest work of the kind. Nearly 100 pages, with illustrations. Price, postpaid, 50 cents; or clubbed with Bee Journal one year, for $1.30.

QUERIES AND REPLIES

Starters in Sections, and the 8 and 10 Frame Hives.

Query 878.—When only starters are used, and the brood-chamber is not contracted, do bees commence work in the sections quicker in the eight or in the ten frame hive, supposing that the amount of both bees and previous year's honey is proportionate to the number of frames?—Colorado.

I think they will.—J. P. H. Brown.

I judge there would be no difference.—M. Mahin.

Very little, if any, difference.—J. M. Hambaugh.

I have never seen any difference.—G. W. Demaree.

I do not understand the question.—Mrs. L. Harrison.

In such case the result would be about equal in both sizes.—Dadant & Son.

Under such conditions there is little, if any, difference.—Mrs. J. N. Heater.

I don't know, but I should say there would be not much difference.—J. H. Larrabee.

I don't know, but I think they might in the ten-frame, because the stronger colony is there.—C. C. Miller.

I have never tried this, but I should think the difference would be in favor of the smaller hive.—C. H. Dibbern.

I don't think the number of frames would make any difference, if the bees and honey were in proportion.—E. France.

If each colony were composed of bees possessing the same qualities, I would expect no perceptible difference.—R. L. Taylor.

When are they proportionate? If early in the spring, then I should expect work to commence sooner in the ten-frame hive.—P. H. Elwood.

I do not know that there is any difference, but I do think that you are more apt to get your proportion if you have the ten frames.—Jas. A. Stone.

If the bees and stores are proportionate to the number of frames, there will be no difference. Usually, though, they are not.—James A. Green.

I presume it would be about the same. But on eight frames they would be usually more crowded, and so would go up more quickly.—A. J. Cook.

I prefer an eight-frame hive, though the difference is little. The better the honey-flow, the quicker they commence work in the sections.—Will M. Barnum.

In the first phrase, I suppose sections are referred to. If the colonies are proportionately strong, I can see no reason why there should be any difference.—Eugene Secor.

If you mean when a swarm is hived in an 8 or 10 frame hive, then I answer, in the 8-frame hive. If you do not so mean, then I do not understand the question.—G. M. Doolittle.

The eight frame hive. Bees prefer to store honey above the brood, and an 8-frame hive is always preferable, in my mind, for comb honey. If I worked for extracted honey alone, I think I would use a larger hive.—Emerson T. Abbott.

I have never used the 10-frame Langstroth hive. I should think there would be no difference, even by experimentation it would be impossible to answer this. Two colonies could not be had exactly alike otherwise, to make a fair test.—R. F. Holtermann.

With an average number of bees to the frame, say 4,000, I think there would be no perceptible difference as to time of commencement in the sections, but with 8,000 more bees in the 10-frame hive, I should consider my chances better for a honey crop than with the smaller hives.—S. I. Freeborn.

In my own experience, I have found no particular difference. Bees, as a rule, will not occupy sections while they have room below, but this rule fails often. I use the *close-spacing* method, to force my bees into the sections, and it has always proved a success during the 10 or 12 years since I first "caught on" to the idea.—J. E. Pond.

Since I have been using an 8-frame hive I have not produced any comb honey, but many years ago I beat the record in Texas on securing 300 one-pound sections from one colony in a 10-frame Simplicity hive, and as I believe in letting good enough alone, I would use a 10-frame hive. But to answer your question direct, I will say I don't know.—Mrs. Jennie Atchley.

LETTER BOX
REPORTS PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Dandelion Honey.

The first honey put on the market here this season was gathered from dandelion bloom, I think. This is the earliest date (June 23rd) that surplus, in nicely finished sections, has ever been offered for sale in this locality, to my knowledge.

The comb in the sections above referred to is very yellow, resembling golden-rod. The honey has quite a distinct dandelion flavor. It will probably not be liked by many. Eugene Secor.

Forest City, Iowa, June 24, 1893.

Large Crop of White Clover.

I am glad to say that my bees are doing well. I had one very large swarm to issue on May 9th; I hived them in one of the Nonpareil hives, in one brood-chamber. I put on a super, and to-day it has 24 one-pound sections full of very nice honey, but not all capped over. I have 4 other colonies that are doing well in the supers—nearly all full. There is a very large crop of white clover here, and bees work on it early and late. N. W. Shultz.

Shreve, O., June 17, 1893.

An Experience with Robber Bees.

Robbery germinated in my apiary yesterday. A 3-frame nucleus of that "gentle 5-banded stock," were robbing a full 8-frame hive of Cypro-Italians, and had quite a brisk trade started before I discovered them. Whew, how those "golden pets" did work! I tried everything, and it seemed as if the strong colony (the swarm weighed 12 pounds on May 10th) was doomed to destruction. They did not even defend themselves against these saucy intruders. I noticed that these Italians, instead of "smellin' round and vegetatin'" like blacks and hybrids, walk right in and proceed to fill up their tanks without further ceremonies.

It happened in the middle of the day. After exhausting my limited stock of bee-lore, and books and papers for all available plans, I was ready to give up in despair, when I resolved to adopt the following plan, which proved a complete success:

I closed the entrances to both hives, and removed them from the stand to one side a few minutes, then exchanged places, viz.: the robbers on the robbed, and the robbed on the robbers. Then I opened the entrances to both hives, and out they came. Were they bewildered ? You ought to have seen them. Of course, the robbed remained inactive, while some of the robbers came and brought them back their stolen sweets. This effectually put a damper on their frolic.

I was wondering the last few days how these 5-banded beauties, being so weak, could carry so much honey, as I had to give them four frames of empty comb to store their rapidly accumulating stores. I have ascertained that they wiped out 3 colonies for my neighbor Spoon. Spoon told me the other day his bees were just boiling and rolling in honey at 2 p.m.; at 4 he didn't know what was the matter with them, and upon examination he had 4 bees left in those "boxes his grandfather used to have." I recollect now that I was rejoicing how this 3-frame colony of thieving rascals were obtaining nectar from some unknown source. Now I've had a dose of the same medicine.

I would like to hear from some of the Indiana subscribers, through the valuable AMERICAN BEE JOURNAL.

J. C. WALLENMEYER.

Evansville, Ind., June 10, 1893.

Bees in Weak Condition.

Owing to the cold, rainy weather of late, and backward spring, bees have not been able to gather enough stores to sustain life. Those that have not fed their bees, are now having a great loss. White clover was badly winter-killed here. Basswood will be in bloom in about ten days. The only surplus that I look for is that of fall honey, owing to the weak condition of the bees.

JOHN LEE.

Cedar Bluffs, Nebr., June 16, 1893.

Getting but Little Honey.

This is rather a bad spring, so far, for bees in this place. Mine have just doubled themselves by natural swarming, and at this time they are not getting any honey, or very little.

A. J. WEST.

Paxton, Ills., June 19, 1893.

Very Rainy Weather.

Last fall I had 6 colonies of bees, and the winter was too severe for them. Some froze, and the balance spring dwindled. I bought 6 colonies more in the spring, but I fear they will follow the others, if this rainy weather continues much longer. There has not been ten clear days since the middle of March, and there seems to be but little nectar. Besides, the bees cannot get out after what little there is, without taking their umbrellas; but, of course, they are supposed to do that if they gather honey in Washington.

Two of my colonies seem to have the nameless disease. I tried putting salt in one hive, and they are doing better than the other. Whether the salt helped or not, I am unable to say. No swarms has issued in this part of the country yet. If it ever stops raining, so the bees can do any good, you probably will hear from me again.

THOS. WICKERSHAM.

Wickersham, Wash., June 15, 1893.

Booming on Honey-Dew.

We have no white clover honey this year. Bees are booming on the honey-dew.

FRED BECHLY.

Searsboro, Iowa, June 19, 1893.

Bees Wintered Well.

Bees did not do well last year on account of the wet weather and cool spring, and we do not think there is any improvement over last year. Our bees wintered well, and we did not lose any out of 140 colonies, excepting 4 were queenless. They were wintered on the summer stands, but judging from what we can hear, about half of the bees through the country died, mostly from starvation. My father says the last two years were the poorest for bees that he has experienced in about 25 years. It is not only in bees, but the fruit-growers are in the same condition, but we hope that sunshine will follow rain.

The BEE JOURNAL is a welcome visitor, having been much improved by the present publishers.

CLARA SCHUMACHER.

Weston, Mo., June 19, 1893.

Tincture of Arnica for Bee-Stings.

A very valuable remedy for bee-stings is tincture of arnica. While an ordinary sting causes inflammation for two or three days, tincture of arnica makes it last only a few hours. Ladies and gentlemen who don't care about having a bad-looking face should try it.

We are having a splendid honey-flow here. Swarming is at hand.

"MONTREAL SUBSCRIBER."

Montreal, Canada, June 21, 1893.

Bees Doing Finely.

Bees are doing finely here now with a favorable prospect.

W. H. NORTON.

Skowhegan, Me., June 23, 1893.

Losses in Wintering.

My bees are doing all right. I lost only one colony the past spring. I think it was queenless. It was in an old hive, and I could not take the frames out. John Ayrhart lost 17 colonies last winter, and George Coolie lost all. Mr. Evans lost all. C. D. Clifford had one colony, and lost it. Mr. McGregor also had one and lost it, as did a great many others. I think that the report of Mr. Thos. Johnson, in the BEE JOURNAL is about correct.

JAMES HARDIE.

Dedham, Iowa, June 16, 1893.

Getting Honey—Worms on Basswood.

After last season's reverses in our chosen pursuit, it is encouraging to hear the contented hum of bees gathering honey from white clover. I put into winter quarters 23 colonies, and lost one in the cellar, and two by dwindling on the summer stands. I now have 25 colonies in fine condition storing honey in the supers. My neighbors lost from 25 to 100 per cent. Most of our bee-men are discouraged, but I hope for better returns this season.

There is a worm (commonly called "measuring worm"), working on the trees—maples, basswood, and fruit-trees. Can any one tell whether they ever destroy the blossoms on basswood? I can't do without the BEE JOURNAL. Long may it live. DANIEL SPRAGUE.

Hub City, Wis., June 15, 1893.

◆

Storing Surplus Honey Fast.

Bees are doing well—never better. They are storing surplus very fast. I think that Kansas will soon take rank with the first honey-producing States. J. H. RUPE.

Williamsburg, Kans., June 19, 1893.

◆

Red Clover Preferred to the White.

I would be pleased to hear more from Northern Michigan. In my locality, or rather, my bees do not work on white clover. We couldn't be blessed with more white clover than at present, and it is entirely unnoticed by the bees, but the red clover is all alive with the busy little workers.

Many thanks for publishing such a valuable paper. I have "A B C of Bee-Culture," and other books, but I can get more information out of the AMERICAN BEE JOURNAL than all the books, as it gives experience from all over the world in bee-culture. J. W. MILLER.

Rodney, Mich., June 26, 1893.

Convention Notices.

NORTH CAROLINA.—The Carolina Bee-Keepers' Association will hold its sixth semi-annual meeting on July 20, in Charlotte, N. C., at the Court House, at 10 o'clock a.m. All persons interested in bee-keeping are invited.

Steel Creek, N. C. A. L. BEACH, Sec.

ILLINOIS.—The summer meeting of the Northern Illinois Bee-Keepers' Association will be held at the residence of O. J. Cummings, 2 miles northeast of Rockford, Ills., on Aug. 15th, 1893. A good meeting is anticipated. Everybody is invited. Come and see Mr. Cumming's methods of handling bees.

New Milford, Ills. B. KENNEDY, Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture in every foreign land. FRANK BENTON, Sec.

Washington, D. C.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
July 20.—Carolina, at Charlotte, N. C.
A. L. Beach, Sec., Steel Creek, N. C.

Aug 15.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.......Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

◆

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

◆

Please Don't send to us for bee-supplies, as we do not deal in them, and your order, if sent to us, must necessarily be delayed in filling. Just patronize those supply dealers who advertise in our columns, and you will thus please us most. We shall be glad to furnish you any bee-book and the BEE JOURNAL, but when it comes to supplies—well, we are not "in it."

◆

Your Neighbor Bee-Keeper—have you asked *him* or *her* to subscribe for the BEE JOURNAL? Only $1.00 will pay for it for a whole year. And, besides, *you* can have Newman's book on "Bees and Honey" as a premium, for sending us two new subscribers. Don't neglect your neighbor! See page 3.

◆

Speaking of Family Story Papers, a well-known writer once said that the *Family Ledger* published in Los Angeles, Calif., is, without question, the cheapest and best printed illustrated family weekly in the world. Over 60 complete serials are run in a year's issue. The paper has many copyrighted features, and is illustrated each week. To those who are unacquainted with this remarkable periodical, a special offer is made of 10 weeks for 10 cents. Few that read story papers will allow an opportunity to pass whereby they can secure so unique a paper for such a small sum.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, July 1st, 1893:

CHICAGO, ILL.—There is not much movement in comb honey. Prices range at from 12@16 and 17c., all good grades bringing 15@17c. A few cases of the new crop have arrived and brought the top prices. Beeswax is very steady at about 25c. Extracted honey is moving very slowly at from 6@8c.
R. A. B. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote; No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.
Beeswax—20@23c. C.-M. C. C.

CINCINNATI, O.—New extracted has commenced to arrive lively, and is in fair demand at 5@8c. There is a slow demand for comb-honey, and no choice on our market; prices nominal.
Beeswax—Demand good, at 22@25c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—New crop of extracted is arriving freely. Market is quiet and demand limited. Fancy grades sell at from 7@8c.; common to fair, at from 60@70c., as to body, color and flavor. Beeswax, 26@27c.
H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality, 1-lbs. Beeswax is neglected at 22@23c. S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 6@7c. No beeswax on the market. H. & B.

BOSTON, MASS.—Honey is selling slow and prics are lower. Best 1-lb. comb, 16@17c.—Extracted, 8@10c.
Beeswax—None on hand. B. & R.

ALBANY, N. Y.—Our honey market is dull at present. There are some receipts of new extracted, but no reliable price established yet. Beeswax is more plenty, at 27@28c. for good color. H. R. W.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white comb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

Amerikanische Bienenzucht is the name of a bee-book printed in the German language, which we now have for sale. It is a hand-book on bee-keeping, giving the methods in use by the best American and German apiarists. Illustrated; 138 pages; price, postpaid, $1.00. It is just the book for our German bee-keepers. We club it with the BEE JOURNAL for one year, for $1.75.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.
F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway

San Francisco, Calif.
SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.
J. A. SHEA & CO., 14 & 16 Hennepin Avenue.

Kansas City, Mo.
HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.
H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.
CHAS. DADANT & SON.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE — High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

TO EXCHANGE for Apiarian Supplies—a Photographic Outfit and two Volumes of Henry M. Stanley's "Darkest Africa," (new).
CURTIS HUNT,
1A1t Durhamville, N. Y.

FOUL BROOD CURED without drugs or medicines of any kind. I will go to any foul-broody apiary, and GUARANTEE to cure it without destroying bees or interfering with brood-rearing. No charge for time, car fare, or services, if not successful. Write to me for terms, etc. NORMAN AUSTIN,
26Atf 6441 Wright St., Englewood, Ills.

Advertisements.

I Will Convince You

If you will send for a sample of my 5-banded Bees. Sample free. 1 Untested Queen, 75c.; six for $4.25; 12 for $8.00.
Breeding Queens, $2.00; Extra Fine, $5.
Circular Free. **J. F. MICHAEL,**
1D6t GERMAN, Darke Co., OHIO.

Five-Banded Golden Red Clover Bees!

If you want Bees that will work on Red Clover, try one of our **5-Banded Queens.**

Untested, 75 cts.; ½ doz. $3.60 Tested, $1.50. Sel. Tested, $2.00. The best $4.00. Descriptive Circular Free.

LEININGER BROS.
Ft. Jennings, Ohio.

24Atf *Mention the American Bee Journal.*

SOLID YELLOW QUEENS.

OF the 5-Banded variety warranted to get Bees with at least 3 broad bands. So far over ½ this year show all of their Bees **Solid Yellow** on the first 4 segments (no **Bands** about it), and some yellow on the fifth, and **very few** show Bees **all** as poor as 3-banded, and **not one** mismated. These Queens are **all** yellow, but the tip is slightly darker than the rest of the abdomen.

These Bees are **very** gentle, and there is no bee that can surpass them for Business.

BEAUTY, BUSINESS, GENTLENESS,

What more do you want? One dollar each; 6 for $5.00. Entire satisfaction guaranteed.
Reference—George W. York & Co.
Money Order Office, Cable, Ill.

S.F.Trego, Swedona, Ill

COON VALLEY APIARY.

Albino, Italians and Golden Queens

FOR SALE. Warranted Purely Mated, $1.00 each; $5.00 for ½ dozen; $9.00 per dozen. Bred in separate yards 3 to 4 miles apart. I took 1st Premium on each race of bees at the Iowa State Fair in 1892 with Eugene Secor, of Forest City, L. G. Clute and Frank Coverdale as judges.

Send in your orders and get **Queens second to none in Grade in the U. S.**

THOS. JOHNSON,
1Atf COON RAPIDS, Carroll Co., IOWA.

Mention the American Bee Journal.

ESTEY & CAMP

CHICAGO, ST. LOUIS,
State & Jackson Sts. 916-918 Olive St.

A Strictly Reliable Source for

PIANOS ⁂ —: AND :— ⁂ ORGANS

Of All Grades, Sizes and Colors.

Comprising the Celebrated

DECKER BROS.; ESTEY; BRAMBACH AND CAMP & CO. PIANOS AND ESTEY ORGANS.

Renting, Tuning, Repairing, Etc.

Mention the American Bee Journal.

JUST SPLENDID.

"MR. H. ALLEY—The Queen I got from you last fall is just splendid. She is the best Queen in an apiary of 150 colonies. I would not take $10 for her.—JOHN A. PEASE, Monrovia. Calif."

Price of such Queens is $1.00 each.

HENRY ALLEY, Wenham, Mass.

WE OFFER

COMB FOUNDATION

WHOLESALE AND RETAIL,

AT VERY LOW PRICES.

☞ Satisfaction and All Work Guaranteed.

Part of our Machines are here, and we will be able to fill a few orders next week at prices ranging **from 36 to 56 cents per pound.**

Remember, we are **pushing matters** as fast as possible, and **will not be undersold**

Send your name and address, for we do not know you and we will keep you posted.

BEESWAX WANTED. Write for Prices

W. J. FINCH, JR.,
931 E. Monroe St., - SPRINGFIELD, ILLS.

Mention the American Bee Journal.

ESTABLISHED IN 1861
THE AMERICAN
OLDEST BEE-PAPER IN AMERICA

BEE JOURNAL

GEORGE W. YORK, Editor.
DEVOTED EXCLUSIVELY—— ——TO BEE-CULTURE.
Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., JULY 13, 1893. NO. 2.

EDITORIAL BUZZINGS

The Old Friends, the old friends,
We loved when we were young,
With sunshine on their faces,
And music on their tongue!
The bees are in the almond flower,
The birds renew their strain;
But the old friends, once lost to us,
Can never come again.

The old friends, the old friends!
Their brow is lined with care;
They've furrows in the faded cheek,
And silver in the hair;
But to me they are the old friends still,
In youth and bloom the same,
As when we drove the flying ball,
Or shouted in the game.
—*London Spectator.*

* * *

Never Laugh at anything funny you say yourself. In the first place, it spoils the joke, and in the next place it is very likely no joke, any way.

* * *

The Japanese Honey Industry is also represented at the World's Fair by specimens of bees, honey, beeswax, and hives. The Japanese Agricultural Bureau has published a little pamphlet explaining the way of using the hive, the method of collecting honey, and giving the names of the plants from which the bees get honey. It is there stated that honey sells for 9 sen (cents) a kin (1.325 pounds), and beeswax at 30 sen a kin.

Birds of Michigan, by Prof. A. J. Cook, is the title of a beautiful pamphlet just issued by the Michigan Agricultural College. It is Bulletin No. 94, contains about 150 pages, and is elegantly illustrated. It must have taken a wondrous amount of work to prepare, and that may account for Prof. Cook's seeming to take so little interest in bee-keeping of late. The Professor is a hard worker, and the "Birds of Michigan" is only one of the results of his tireless efforts.

* * *

Illinois Bee-Keeping was not aided very much at the late meeting of the State Legislature, outside of the appropriation for making the apiarian exhibit at the World's Fair. Mr. Jas. A. Stone, Secretary of the Illinois State Bee-Keepers' Association, wrote us as follows on June 23rd:

BRADFORDTON, Ills.

Our Legislature has adjourned without doing anything for us, or for the people of the State, in the way of helping along the bee-keeping industry, and thereby cheapening honey to the consumer. We had some good friends there among the members of both houses, and we desire they shall always be remembered, and we shall do it in every way we can.

Our Bill asking an appropriation of $500 to publish our Report, passed the House of Representatives, and when on the second reading in the Senate, the enacting clause was stricken out.

The Bill to prevent the adulteration of honey passed the Senate, and went to the second reading in the House. Their plea, when approached regarding it, was—"Hain't got time." The Legislative committee of the State Bee-Keepers' Association did all in their power to do, but to no avail. Sometimes we had hopes, but they soon withered away.

I wish to say, however, that our coming report (for 1893) has been delayed until we should know whether or not the appropriation for its publication was to be continued, and as the question is now settled, we desire to say that the said Report will probably not come out until about the end of 1893, or the beginning of next year.

We wish also to say that copies of the Report will be bound in cloth in sufficient number to supply the members of the Illinois State Bee-Keepers' Association, and as many as the fund will allow beyond that, in paper covers. JAS. A. STONE, *Sec.*

Prevention of Swarming.—Miss Amanda Atchley, in *Uncle Sam's Live Stock Journal* for June, wrote as follows about the cause and prevention of the swarming of bees:

> Some one asks: "What causes bees to swarm?" Well, it is an abundance of sealed brood that causes them to swarm, as I never knew a natural swarm to issue without an abundance of sealed brood, both drones and workers. But sometimes they *may* swarm without drone-brood at all. Still they are likely to have sealed drone-brood at the time the swarm issues. Whoever knew a natural swarm to issue without plenty of sealed brood? Even if they have a full hive of unsealed brood they show no swarming sign. When our bees are on a swarming rampage, I always find the hive solid full of sealed brood. In short, bees nearly always have sealed brood, sealed drones, and sealed queen-cells. Then look out.
>
> If you wish to keep your bees from swarming, keep their sealed brood taken away until they become so weakened that they are willing to give it up, and I will bet you a nickel you can control swarming. Use the brood in strengthening weak colonies, or build up good, strong colonies with the sealed brood, and give them a case of sections and a queen-cell, or a *young* laying queen that is not bent on swarming, and you have got 'em. I should like to strike that apiary with a swarming-fever that I could not control. Try my plan, and see.

The Proper Care of Honey.—During the past few years of failure of the honey crop directions as to how to keep honey were quite unnecessary, as there was practically no honey to require any care; but this year, as we hope it will be different, we give below some suggestions that may be of service to those who secure honey, and desire to know how to take the best care of it.

> After the honey is taken from the hive, says the *Kansas Farmer*, a great many people permit it to spoil because they do not know how to care for it. Many think it should be kept cool, and so put it in the cellar. This is the worst thing that could be done with it. If there is any dampness around, honey is sure to absorb it. "But our cellar is very dry, and it is the only place we have to keep it," has been the remark of more than one to the writer when he has told them not to put honey in the cellar. It may be well to say, once for all, that there is not a cellar in the United States dry enough to keep honey in. Put your honey in the dryest and warmest room you have about the house. If there is a fire in it, all the better, as honey should not be left where it will freeze in winter.
>
> Dry and warm is the rule for honey, if you want it to retain its flavor and richness. Honey properly kept will improve with age, and the older it is the better it will be. But if kept in a damp place, it will absorb moisture, become thin and watery, and soon lose its rich flavor. As soon as it is exposed to cold, when in this condition, it will granulate in the cells, and then it is almost worthless except to melt up and feed to the bees in the spring.
>
> The above instructions are for comb honey. Extracted honey should also be kept in a dry, warm place. To keep the moth-worm out of comb honey, it is well to fumigate it occasionally by burning sulphur in the room where it is stored.

The Baby Carriage advertisement in our columns seems to have worried Mr. Sage, the editor of the *Bee-Keepers' Enterprise.* He says this in his June 15th number:

> I see friend York is advertising Baby Carriages. Is that a cash adv., Bro. York, or have you taken one in trade?

As we have not had any use for a baby carriage for over 30 years, or since *we* were small enough to ride in one, it is quite unlikely that we are trading for one now. Perhaps Mr. Sage was thinking that he needed a carriage for his two months' "baby bee-paper," the *Enterprise.* If so, he may be able to borrow one from Bro. Hutchinson, or as soon as his little "Fern" gets through with hers. Of course it would be a second-hand one, but some things are the better for having the "newness" worn off a little. We may be a little previous in suggesting that a baby carriage could perhaps be borrowed from our Bro. Hutchinson, in view of the fact that for the past decade or more he has kept one in almost constant use. But if Mr. Sage really needs a baby carriage now, or thinks one would come in handy later on, we would commend him to the firm advertising in our columns, who warrant their carriages "for three years."

Have You Read that wonderful book Premium offer on page 35?

THE STINGER.

"Flavored" with Formic Acid.

The following is not culled from Dr. Miller's "Stray Straws," but was taken from one of the daily papers:

"Our Crazy Contributor is dying to know if that singular-looking specimen of vegetation, known as the monkey-plant, is of the same variety as the chim-pansy; and if so, would not the proper place for cultivating it be an ape-iary?"

We do not propose to solve the conundrum, but would suggest, however, that the "Crazy Contributor" do not monkey about the "ape-iary" else he may find things worse than if a bull had gotten into a crockery shop.

It is admitted that one swallow does not make a summer, yet we think one bee comes nearer making summer than any other single thing we know of, for does not a bee make things awfully warm, sometimes?

Little drops of honey,
  Little grains of gold,
Make the bee-men happy
  When their sweets are sold.

A bird in the hand is worth two in the bush; but as much cannot be said of a bee in the hand. Too often one in the hand is too heavy to hold.

Wasn't it that delightfully pleasing and dyspeptic old poet, Alexander Pope, that said something about children being "tickled with a straw and pleased with a rattle?" Perhaps Dr. Miller can inform us, for he seems to have gotten the "straw" tickling business down to a fine point. BY ONE STUNG.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Will Shade Prevent Swarming?

I am a beginner in bee-keeping, having 10 colonies, mostly blacks, all in movable-frame hives, and all good, strong colonies. I wish them to increase. This is June 12th, and they have not swarmed yet. Everybody's bees around me are swarming; some swarmed on May 15th, and my bees do not act as if they cared to swarm. Is too much shade the cause? I have them under low apple trees, the hives all being well shaded.

CHAS. C. CHAMBERLIN.

Romeo, Mich.

ANSWER.—Shade cannot be relied on to prevent swarming, but it has a tendency in that direction, a colony in the open sun being more likely to swarm than one in a dense shade, and swarming sooner in the warm location. If you continue bee-keeping long enough, you may be very anxious for a shade deep enough to prevent all swarming.

Why Does a Swarm Return?

Why do bees swarm and settle, and while you are hiving them they will return to the hive from where they came?

C. W. ROBERTS.

Brownville, Nebr.

ANSWER.—If the wings of a queen are clipped, or if for any reason she cannot accompany the swarm, the bees will return to the hive, sometimes immediately and sometimes after settling for half an hour. Sometimes when a queen goes on her wedding trip, the colony issues like a swarm and then returns to the hive. Sometimes a swarm will issue, and then return, and no one under the sun can tell why.

What Ails the Bees?

1. What ails my bees? The strongest colony I had has been carrying out dead brood for 4 weeks. I looked at them this morning (June 11), and found only drone-brood, and that was all sizes from fresh eggs up to full size.

2. My 16 colonies I put into the cellar on Nov. 1st; they came out all right except one that was queenless, but they robbed one colony since. I never have lost one in the cellar, but am losing from 2 to 3 every year from getting queenless. I leave the tight covers on. My cellar ranges from 42° to 45°.

3. Why are the Italians so many different colors? I sent to Texas and got an untested queen for my queenless colony this spring, ond got one as yellow as gold—the first Italian I ever saw—and her bees are all the way from almost black to yellow, with a black tip.

Is that a general thing with mixed bees? They are considerably smaller than my black bees. S. M. ROBERTSON.
Grey Eagle, Minn.

ANSWERS.—1. If the brood in the hive is all drone-brood, there is either a drone-laying queen present, or laying workers. In either case the colony is utterly worthless if left to itself, and the workers present are probably so old and so few that it may be best to break up the colony. If, however, you think there are enough bees to be worth saving, put in a frame containing young brood, and after they have started queen-cells you can give them a queen-cell ready to hatch. Possibly they might respect the queen-cell if given to them at once. It might be a good plan to try dropping in a young queen less than a day old, as some have reported success in this way.

It is not so easy to say why the bees have been carrying out the young brood. Possibly because worms at work in the combs have injured the brood.

2. The queenlessness probably does not result from anything in the wintering. Very likely the bees were queenless in the fall.

3. Your queen being untested, she probably met a black drone, and such first cross is likely to produce bees some of which look like pure blacks and some like pure Italians.

Bees Swarming Out—Young Drones.

1. Do queens ever dislike a location? I hived a swarm and the bees and queen went in all right, but the queen came out and took wing. I caught her and put her back, and the operation was repeated several times, and the same day the queen and all left, the bees had begun to draw out the foundation. Were they led off by the queen?

2. What makes bees destroy the young drones that are not hatched out? I had one colony to do this daily. It was not because there was a dearth of pasturage, for bees are swarming and they are lying out at the same time.
Bankston, Ala. M. W. GARDNER.

ANSWERS.—1. It isn't easy to say positively as to the likes and dislikes of a queen. More likely it is the workers whose tastes are to be consulted. At any rate it is no unusual thing for bees to swarm out after being hived, if the place is too hot, or objectionable in any other way, sometimes making quite a start at housekeeping before leaving. Sometimes they seem to swarm out again out of pure mischief.

2. If honey was coming in plentifully, and bees were destroying drone-brood, it might be because they had a young queen just commencing to lay, and so had no more need of drones.

The Most Desirable Hive-Cover.

Which is the most desirable cover for this climate, the gable, slanting or flat, and why?

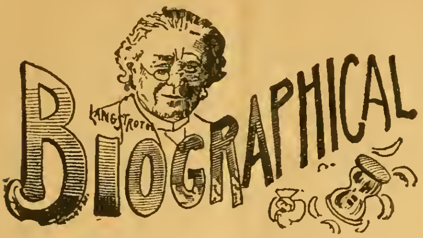
What are the objections to the gable?
Tacoma, Wash. G. D. LITTOOY.

ANSWER.—"You pays your money, you takes your choice." Some like one, some like the other. A gable cover, as usually made, costs more than a plain flat one, and the flat cover is quite popular because it can fit right down on the hive with no quilt or sheet under it, having only a bee-space (scant ¼ inch,) between the cover and the top-bars. On the other hand, it is difficult to have a flat cover that will not warp. A gable cover will not admit of piling up as will a flat one. A good cover is made that is a sort of compromise, fitting flat on the hive but made slanting by making the sides of the cover thinner than the middle. Straight cleats make piling up possible in spite of the slanting cover.

A Case of "Nameless Bee-Disease."

I have a colony of bees that puzzles me. They crawl out in front and up on the side of the hive. They shake as if they had a chill. Their abdomens are greatly distended. A good many of them are glossy black, and look like skeletons. I never saw anything like it. I have examined them several times, but can see nothing the matter with them; and for all that so many of them die every day, they are tolerably strong.
R. R. STOKESBERRY.
Clinton, Ind.

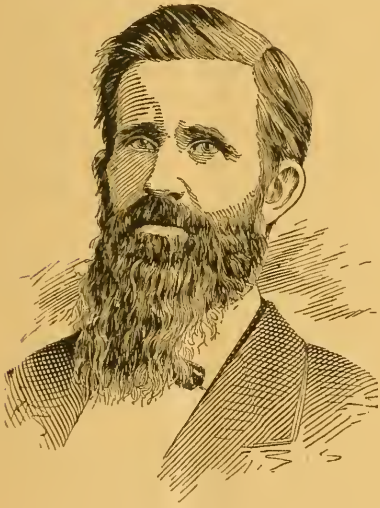
ANSWER.—You have on hand a case of what has generally been called the "nameless disease." It is also called "bee-paralysis," the scientific name being *bacillus depilis*. In some cases little harm seems to come from it, while a few cases have been reported as terribly destructive. Changing the queen has been recommended as a cure, also feeding salt water, while some who have had much experience with the disease in its milder form say that it soon disappears if let entirely alone.



J. S. HARBISON.

Mr. W. A. Pryal, of North, Temescal, Calif., has kindly furnished the following interesting biographical sketch of one of the most noted bee-keepers the world ever knew:

J. S. Harbison! What a name was this in California a quarter of a century and less ago. And the golden boundaries of the Sunset State were not sufficient to keep that name within its confines, for we read that it was known all over America, especially among the bee-keepers who were seeking after new and approved methods of caring for bees, and the latest devices of securing honey. And yet, after all those years have gone, this name is still known and talked about in the Golden West.



J. S. HARBISON.

John S. Harbison did not begin his bee-keeping career in the State he has since helped to make famous by the marvelous crops of honey he has secured from his bees. He was born in Beaver county, Pa., in 1826. It was on the parental farm in that State that he imbibed his love for the insects he has done so much for ever since. His father was considered one of the leading bee-men in that part of Pennsylania, and, though he kept his bees in the log-gums and straw-skeps so common in those days, he managed to make quite a success of the colonies he owned.

The subject of this sketch was not slow in recognizing the merits of the "Week's" hive, which came into use about 1843. The young enthusiast improved upon the hive, and his inventions were so successful in obtaining better results from his bees, that he determined to make further improvements in bee-hives.

And yet, while he was getting larger crops of honey, and carrying his bees through the severe winter with more satisfactory showings than his neighbors, or, for that matter, any one for miles around, he came to the conclusion that to make a complete success of bee-keeping, the apiarist would have to locate his apiary in a country where the conditions of the climate were such that there would be little trouble in wintering the bees. In the early history of California, and the State was yet young, he had heard of the evenness of the climate of that new and then wonderful country. His enthusiasm was such that he had to "make off" for the new Eldorado to try his luck in the gold fields, as well as in the fields of apiculture and horticulture.

He set out for the fruitful fields of California in 1854, and first tried his hand at mining in Amador county. Gold not panning out well, he sought work in a sawmill, but he soon saw that he was wasting his energies at this laborious employment. His tastes were in the line of cultivating the soil and caring for the toiling bee. He, therefore, returned to his native State, and we soon find him on the way back to California with an assortment of trees and seeds, chiefly of fruits. With these he started a nursery near the city of Sacramento. He was also one of the first importers of bees to this State. As the early history of the bee in California was dwelt upon at length by the writer in the last December issues of the AMERICAN BEE JOURNAL, it will not be necessary to again refer to it here. Suffice it to say, however, that Mr. Harbison, though not the first to bring bees to California, was the first to bring any considerable number of them through with any degree of success.

For a number of years he conducted a successful apiary on the banks of the Sacramento. In 1869 he opened up several apiaries in Southern California. His ranges were in the sage belt, and consequently he reaped harvests the like of which were never before known in the honey line. The newspapers of the world printed and reprinted accounts of the fabulous yields of his colonies. It was in 1873 that he shipped the first full carload of comb honey out of this State. This was followed, a few years later, by a shipment of ten carloads to New York, the major part, I believe, being under consignment to Europe. He owned apiaries at different points in San Diego county, and his colonies at one time ran as high as 3,500. Sometimes the yield from these bees, as stated, was enormous; his greatest yield was 60,000 pounds from 300 colonies.

Often in locating his apiaries he would buy up tracts of land. As these pieces of property were in different parts of the country, he evidently unknowingly got hold of some fine sites for fruit farms. Some of these he sold off, so I have been informed, at good prices during the boom times that prevailed in Southern California a few years ago. These sales, with the nice, snug sums realized from his grand yields of honey, have made Mr. Harbison one of the solid men, financially, of his county. He is now a gentleman of leisure; still, he is not idle by any means, as he is conducting a large grocery business, besides still having 500 colonies of bees and large fruit orchards to look after.

His home at San Diego is an elegant one—one fitting a gentleman of his taste and wealth. He was married in 1865, and of this union there were three children—two daughters and a son. The latter died in infancy.

As a review of Mr. Harbison's excellent "Bee-Keepers' Directory," which was published in San Francisco in 1861, as well as references to the hive and honey section which bear his name, as also his smoker and other inventions, were given in the issues of the AMERICAN BEE JOURNAL before referred to, it will not be necessary to again revert to them. It might be said that all the bee-keeping public has ever heard of this eminent apiarist has been through his "Directory," and as that book has been out of print for a quarter of a century, it is safe to say that the bee-keeper of the present day has but little knowledge of the man. He has appeared but seldom in print, that is, in the papers devoted to bee-culture, and then very briefly.

By reference to one of the very earliest volumes of *Gleanings in Bee-Culture*, one may find his reason for not taking the public into his confidence. I have often felt as he has in this matter. It is generally the man who has made a success in business that is the least likely to give all the details of conducting that business to the outside world. The knowledge these men have acquired is valuable, and it is hardly to be expected that they will give "trade secrets" away. It is only necessary to look about us to find scores of great manufacturers and artisans who are as "dumb as an oyster" about their occupations. I do not desire to say that Mr. Harbison is a selfish man; on the contrary, he is not. He did much for the bee-keeping world years ago—far more than he was ever repaid for doing.

W. A. PRYAL.

Convention Notices.

NORTH CAROLINA.—The Carolina Bee-Keepers' Association will hold its sixth semi-annual meeting on July 20, in Charlotte, N. C., at the Court House, at 10 o'clock a.m. All persons interested in bee-keeping are invited.
Steel Creek, N. C. A. L. BEACH, Sec.

ILLINOIS.—The summer meeting of the Northern Illinois Bee-Keepers' Association will be held at the residence of O. J. Cummings, 2 miles northeast of Rockford, Ills., on Aug. 15th, 1893. A good meeting is anticipated. Everybody is invited. Come and see Mr. Cumming's methods of handling bees.
New Milford, Ills. B. KENNEDY, Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land, FRANK BENTON, Sec.
Washington, D. C.

Mr. Frank H. Howard, of Garden City, Kans., committed suicide by shooting himself, on June 19th. The cause was a young lady refusing to marry him. Mr. Howard was 28 years old, a bee-keeper and queen-dealer at Garden City, and was advertising in the BEE JOURNAL at the time of his death. Mr. A. S. Parson, of the same place, will continue his business, and see that all just claims are settled. This is the second case of suicide among apiarian people within a few months. Let us hope that it will be the last.

IN SUNNY SOUTHLAND

CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

Some Old Colonies of Bees.

While the boys were out selling honey last December, they came across a widow by the name of Young, who had been trying to give a colony of bees away for years, and one party started off with it, and had to set it down and leave it, and told Mrs. Dr. Young that he did not want them, as they stung him fearfully.

Another man got it, moved it off the stand, and he too gave up the treasure. There had been no honey taken out of it for years, as they were noted as terrible fighters—everybody but a bee-man was afraid of them. Willie told the lady he would give her 50 cents for the hive and bees.

"All right," she said; but she did not wish to keep the money unless he succeeded in getting the hive away. To this Willie and Charlie smiled at each other, and told her they would risk taking the bees away.

So without a smoker or veil they slipped a sack over the hive, and laid it in the wagon, leaving the whole crowd in a perfect surprise and wonder as to what kind of boys these were, and who they were, but the boys said not a word, but drove right along from house to house selling honey as though nothing had happened. So much for knowing how to handle bees.

Now for the history that I started out to tell. This hive of bees was given to Dr. Young more than 16 years ago, by the late Judge Andrews, of McKinney. The bees are a fair sample of Italians, and have swarmed nearly every year, the swarms being allowed to run away, or given to any one that would take them. Now, while the combs in this hive are almost as black as tar, and no doubt 20 years old, the bees are as large as any Italian bees I have ever seen. The hive is of the old American pattern, combs nice and straight, and has a powerful colony of bees.

Who says it will not do to use combs for more than three or four years? This colony has kept itself for 16 years, but has not paid the owner anything. Taking Nature as we find her, and I say that brood-combs that have been kept in a hive occupied with bees all the time, are just in their prime at ten years old. I once found bees in a cedar log that had gone into the tree when it was standing, as some old comb still remainin the stump, and the log had become so rotten that I could pull it to pieces with my hands, and the first combs the bees had used were also rotten, and would not hold honey. But the bees had left the first nest and gone further up the log and made a new nest, and the combs of the new part were so black that they looked blue, and the brood-cells one-third smaller than new comb. Now, taking into consideration the hive, as mention above, being 20 years old, and the combs still good, and the bees full size, how old could we expect the combs were that were in the cedar log? When we take into consideration the durability of cedar wood, I am forced to believe that the bees had been in this tree more than 50 years. JENNIE ATCHLEY.

No. 2.—Texas and Her Resources.

CORYELL COUNTY.

MRS. ATCHLEY:—As promised, I will write up this county for you.

To commence with, I think, and every one else that lives here pronounces, this a very good country. Of course, there are better countries than this. The soil varies from real black to the regular old, large grain sand. The black is not as the black, waxy soil of Hunt and Collin counties, but its produce is just as good. Instead of being waxy, it has a small gravel mixed with it, and it can stand more rain than those other counties I spoke of. In some parts a great many rocks are to be found, though the farmers find a use for them, such as building fences, chimneys, dwellings, walks, flues, wallings for wells and cisterns, and various other things that they can be used for.

We have black, sandy soil, and the white sand, like unto those of other countries, although it never wears out. Any kind of stock can be, and is, raised here; also fowls of any kind. Sheep do well with a small amount of feed through the winter. There is scarcely any land but what is fenced, except in the western portion, near the line joining Lampassas. We have plenty of prairies, and plenty of timber, also mountains, hills and valleys, and wild flowers all over Texas.

Our timber consists of elm, sycamore, cedar, and several kinds of oak, including the live oak, which is the most plentiful. Walnut, pecan, black-jack, wild plum, black haw, hackberry and chittim; all kinds of berries, grapes, plums and peaches do well. Apples and pears do well in some parts of this county, but not everywhere.

We have some ever-flowing springs that run out from the banks as cool in summer as water can well get without having ice in it. Almost all the wells that are being made now are bored wells. They make them from 25 to 200 feet deep, and a good many artesian wells are to be found here.

Bees do well here, but there are not a great many of them. The people do not take enough interest in them to make money at bee-keeping. All they want is enough honey for family use, and to divide with a few of their neighbors who are so unfortunate as not to have a few colonies of their own. Seldom is one often found who has over a dozen colonies—that is all they need, although if they had it they could sell any amount of honey. I would love to see some good bee-man come to this county, for I think he would do well. We have good schools and good societies of all kinds. Hunting and fishing carry the day now. Squirrels, birds, and rabbits are in abundance. There are scarcely any wild turkeys here now; that day is past, and the country is getting too thickly settled for them, although there are a few here yet. There is plenty of game here that is not eatable, such as raccoons, possums, wild cats, foxes, wolves, coyote wolves, and sometimes a panther, though the latter is not so plentiful.

The healthiness of this country is very good, or has been so far since I have been here; but every one is crying for a good medical man. We have plenty of so-called medical men here, but not many good ones, and those that are good are kept busy because they go so far to see their patients.

I have mentioned everything of much interest, but if there is anything you want to know that I have not told, just let me know, and I will answer all questions, or try to do so, at least.

MRS. JOSIE A. WEBB.

Turnersville, Tex.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

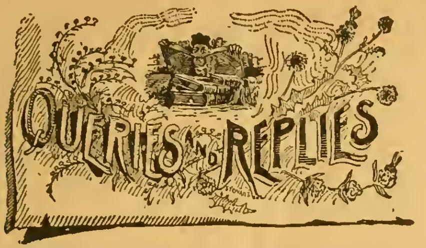
List of Contributors.

Previously Reported	$3 00
Mrs. M. E. Springer, Wilmette, Ills	50
E. J. Wheeler, Hebron, Ind	25
John Royer, Clarion, Iowa	50
Mrs. Jerusha Zug, Perhapsa, Wis	25
Jacob Smith, Rengoma, Ills	50
Total	$5 00

The World's Fair Women "Souvenir" is the daintiest and prettiest book issued in connection with the World's Fair. It is by Josephine D. Hill—a noted society lady of the West—and contains superb full-page portraits and sketches of 31 of the World's Fair women and wives of prominent officials connected with the great Fair. It is printed on enameled paper, with halftone engravings, bound in leatherette. We will send it postpaid for 60 cents, or give it for *two* new subscribers to the BEE JOURNAL at $1.00 each.

Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the BEE JOURNAL for one year, for $1.15.

Bicycles are getting to be very common now-a-days. We have two for sale, and any one wanting a bargain in a good bicycle, should write to the office of the BEE JOURNAL.



Feeding Bees for Extra Comb in the Fall, Etc.

Query 879.—If feeding in the fall beyond winter requirements in order to produce extra comb is practiced, what length of breeding time before cold weather, undisturbed by other work, should be allowed a colony in order not to impair its wintering and springing strength ?—Colorado.

I do not know.—JAS. A. STONE.

I do not know.—MRS. L. HARRISON.

I can't answer this.—EUGENE SECOR.

I would not produce bees in the fall to produce extra combs.—E. FRANCE.

My brain is too feeble to fathom your meaning, Mr. Colorado.—J. M. HAMBAUGH.

The feeding to produce comb should give all the brood required.—G. M. DOOLITTLE.

I should prefer to have all brood hatch out before cold weather begins.—JAMES A. GREEN.

I do not know. I would not feed in that way. It will not pay.—EMERSON T. ABBOTT.

I don't know. What do you want to produce comb in the fall for, anyway ?—C. C. MILLER.

I never tried the experiment ; it would be too expensive to suit my pocket.—R. F. HOLTERMANN.

Such unseasonable work will impair the strength of the colony, no matter how much you stimulate.—P.H.ELWOOD.

Just the longest time that it is possible to give them. Do all such feeding while the weather is yet warm.—C. H. DIBBERN.

In Michigan it is always safe to feed up to the first frost, about Sept. 20th. It is well to finish up then as soon as may be.—A. J. COOK.

I do not think that fall breeding will impair the chances of a colony wintering well, if discontinued at the approach of frosty weather.—S. I. FREEBORN.

I have kept bees breeding here in Central Michigan until the first of November, with only the most satisfactory results so far as I could see.—R. L. TAYLOR.

In this climate they should not be disturbed after September, I think, to produce the best results. Feeding to produce comb should not be practiced after August.—J. H. LARRABEE.

It should be done when the weather is warm, and some weeks in advance of cold weather. It should be borne in mind that bees build comb very reluctantly out of season.—J. P. H. BROWN.

Don't feed in the fall at all, unless it is necessary to feed for winter stores. When feeding back honey to have sections finished, the work to be profitable must be done immediately after the white honey harvest.—G. W. DEMAREE.

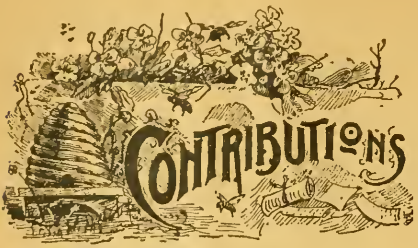
My opinion is, that a colony should be fitted for winter as early as the middle of September, or as soon as golden-rod ceases to yield nectar. I speak only for myself and my own locality (Mass.). Further south, the time may be later.—J. E. POND.

Little, if any. A "double-barreled" colony is not needed in winter ; a moderately sized colony of young fall bees is proper ; but late, cold weather breeding is dangerous, and should be avoided. Produce your extra combs in season.—WILL M. BARNUM.

I do not think that feeding in the fall to produce extra comb is desirable. It will not pay unless there is not comb enough to hold the winter stores. I would not want a colony to continue breeding later than the middle of September.—M. MAHIN.

All young bees reared in the fall should have a cleansing flight or two before confined for winter. If not, they will become uneasy and disturb the entire colony. When feeding is stopped, the queen will stop laying, and you should allow 30 days thereafter for the young bees to hatch and have a flight before confined by cold weather.—MRS. J. N HEATER.

I should think that while you were feeding, if your bees were not crowded too much, they would rear sufficient brood to provide them with plenty of young bees for winter and spring. Bees ought to have a couple of months to breed up in at any season of the year, if they are low in bees. As we have no winter troubles, my opinion is that you had better not feed too long in the fall, though.—MRS. JENNIE ATCHLEY.



Mr. McEvoy's Claims of Discovery of the Cause and Cure of Foul Brood.

Written for the American Bee Journal
BY S. CORNEIL.

I have read with a good deal of interest the biographical sketch of Mr. Wm. McEvoy, by Prof. Shaw, published in the AMERICAN BEE JOURNAL for March 30, 1893, page 393. With all that is said in regard to Mr. McEvoy's industry, his perseverance, and his skill in the management of an apiary, I heartily agree. I would add that he is a very close and accurate observer of what takes place in the interior of the hive, under varying conditions, so far as such observations are possible with the naked eye.

Mr. McEvoy's extensive experience with foul brood enables him to detect it readily, and to form an opinion as to its malignity. He undoubtedly has a method of curing the disease, which he advocates with such persistency and zeal, that bee-keepers whose apiaries are suffering from foul brood, often catch his enthusiasm, and effect cures, where, under other circumstances, they would not have sufficient confidence to make the necessary effort. As Foul Brood Inspector, his suavity and tact enable him to enforce the law with less friction than would, perhaps, occur with many others. For these reasons I have been one of Mr. McEvoy's supporters for the position of Inspector, ever since the Foul Brood Act went into operation, and I shall probably continue to support him, as long as he is willing to accept the appointment, and work under the requirements of the Act.

My present object is to show that Prof. Shaw makes erroneous claims as to what he affirms to be discoveries, made by Mr. McEvoy, for the first time in the history of bee-keeping. I refer to the alleged discovery of the cause, and the cure of foul brood. By contending that "this is the most valuable discovery of modern times in regard to the apiary," that it is one for which the discoverer "is deserving of the gratitude of his countrymen," and that "it will bring him fame wherever the Anglo-Saxon tongue is spoken," Prof. Shaw assumes responsibility for the genuineness, and priority, of the alleged discovery. If these claims had been made by an obscure writer, they might be allowed to pass unheeded, but, if permitted to go unrepudiated, when made by a gentleman occupying the position of Professor of Agriculture in the Ontario Agricultural College, Canadian bee-keepers would be laughed at the world over.

Prof. Shaw states that before 1875, "the ablest scientists in the bee-keeping world had been laboring earnestly to get at the root of the great bee-scourge, but in vain." Evidently the Professor has not kept himself posted in regard to modern bee-keeping. A reference to Cook's "Manual of the Apiary," page 404, 13th edition, would have shown him that prior to 1875, Prof. Cohn, of Bresleau, Germany, had "got at the root of the great bee-scourge," and that he found it to be a specific germ, which has since been named "bacillus alvei." This germ is now recognized as the true cause of foul brood, by all leading bacteriologists.

The alleged *cause* of foul brood, for the correctness of which Prof. Shaw takes the responsibility, is described and explained by Mr. McEvoy as follows: "Foul brood is a disease that is caused by the rotting of uncared-for brood. The brood that is fed in the cells, where brood lately rotted down, will have to consume their food with the remains of decayed brood, and this is the *real* and *only* cause of foul brood." Let us examine the validity of this theory.

It is well known that the rotting, or the putrefying of animal matter, is caused by the action of septic microbes, of which bacterium termo is the most common. It is also well known that these septic microbes cannot exist in living blood and tissues. If Prof. Shaw's contentions were true, then it follows that bacterium termo, which causes putrefaction, not only continues to live, when absorbed by the larvæ with their food, but becomes transformed into the pathogenic microbe, bacillus alvei, which causes foul brood. But it is known to bacteriologists that "a septic microbe has not been proved to be transformed into a truly pathogenic microbe."

Mr. J. J. Mackenzie, Bacteriologist of

the Provincial Board of Health, recently investigated this matter experimentally, with reference to the cause of foul brood, and he states his conclusions thus: "There is a distinct difference between foul brood and ordinary putrefaction." He leaves it to be inferred that it is as unreasonable to argue that "an ordinary microbe, which produces putrefaction, may be metamorphosed into the specific cause of foul brood," as "to expect that a Carniolan queen might lay an egg which would develop into a bumble-bee."

Cheshire says that "bacterium termo is no more like bacillus alvei, than a loaf of bread is like a shoulder of mutton." If Prof. Shaw were to teach his students in agriculture that, instead of always "yielding seed after its kind," the wheat plant sometimes becomes transformed into a different plant, known by the name of chess, he would be laughed at by every intelligent farmer in the country; and yet such teaching would not be more erroneous than the contention that, in the organism of the bee-larva, the microbe of putrefaction not only lives, but becomes transformed into the microbe of foul brood.

The second part of the "great discovery," relating to the *cure* of foul brood, Mr. McEvoy describes as follows: "In the honey season, when bees are gathering honey freely, remove the combs and shake the bees into their own hives in the evening; give comb foundation starters, and let them build comb for four days. In the evening of the fourth day, give them comb foundation to work out, and then the cure will be complete." Familiarity with the literature of bee-keeping would have saved Prof. Shaw from the error of claiming this cure as a discovery made for the first time in 1875. With the exception of one or two variations, a cure essentially the same was practiced and published by Seydell in 1767, by Voight in 1775, by Bonner in 1789, and by Della Rocca in 1790.

In Quinby's "Mysteries of Bee-Keeping," published in 1865, the method of cure by transferring the bees to empty hives is given, and, like Mr. McEvoy, Mr. Quinby did not starve the bess, but allowed them to fly, and gather honey, thus keeping them in as vigorous health as possible.

There is one variation in Mr. McEvoy's cure which, so far as I know, is his own, and it is a good one. I refer to the removal of the new comb at the end of four days, and starting the bees to build comb afresh. This gives the bees a longer rest from nursing, during which the diseased nurses either die off, or become too old to continue to secrete and digest food for larvæ, making the success of the cure more certain.

No one who knows Mr. McEvoy will for a moment doubt that he worked out the cure of foul brood without having any knowledge whatever of what had been previously done by others. Such cases often happen. In the sketches of his life, now running in *Gleanings*, Rev. L. L. Langstroth tells us that after reading a translation of Dzierzon's work, he "soon perceived he had been anticipated in more than one important discovery." Cheshire had similar experience in several instances; so Mr. McEvoy is in good company. That he should discover the method of cure independently, is highly creditable to his ability as an investigator. That he was not aware of what had been previously discovered by other investigators is his misfortune.

From the foregoing it is evident that so far as it relates to the *cause* of the disease, Prof. Shaw's "great discovery" dwindles down to no discovery at all; and that as regards the *cure* of the disease, the discovery was made more than a century before, and the method of cure has been practiced by bee-keepers, from time to time, ever since.

Before closing, I wish to protest against the imputation thrown by Prof. Shaw upon "those best versed in bee-lore," that they are unwilling to appreciate a good thing on account of the source from which it may emanate. Bee-keepers are at least as willing as those engaged in any other industry, to give due credit to one of their number for any valuable discovery he may make, no matter how little he may be known to fame.

The editors of *Gleanings* and the *Review* are capable of defending themselves. The readers of these papers know that both Mr. Root and Mr. Hutchinson are well posted on the foul brood question. It does not require much effort of the imagination to believe that these gentlemen may have had good reasons for declining to publish Mr. McEvoy's articles, besides the one supposed by Prof. Shaw that "no good thing could come out of Woodburn."

Before his appointment to the important position which he at present so worthily fills, Prof. Shaw rendered good service to the agricultural interests of this country, as editorial manager of the *Canadian Live Stock Journal*. "Even Homer nods." Bee-keepers will be delighted to welcome Prof. Shaw to their ranks, and to hear from him from time to time through the bee-papers, knowing from his reputation, that when he undertakes to *investigate* a subject, the work is always thoroughly done.

Lindsay, Ont., April 19, 1893.

The Farmer's Honey Crop—What About It?

Written for the "Stockman and Cultivator"

BY EUGENE SECOR.

I am sorry to know that this is a minus quantity in a majority of cases. To bring about a different state of facts is the object of this essay.

If honey is a desirable article of food, or a luxury worth setting before our family and friends, the question is, "How shall I obtain it?" Shall the farmer who owns the range over which bees forage, raise hogs and cattle and grain for market, and with the proceeds thereof buy his honey, or shall he keep a few bees himself and be independent of the grocer or specialist in honey-production?

Some argue that it is better to leave the production of honey to the specialist altogether. They say he can produce it more cheaply than one who has other business. That is true in some sense. It is also true that the market gardener can raise cabbage and strawberries more cheaply than the farmer usually does. Shall he therefore leave the growing of all garden truck to the specialist, and buy his vegetables and fruits? The main difficulty in both cases is, if the farmer does not produce them himself, his family is very liable to go without the greater part of the year.

I have noticed that those farmers who think they cannot afford to "potter" with a garden or bees, have few of the luxuries which these furnish. Luxuries did I say? Necessities, if health, comfort and happiness count for anything in this world.

Honey is a luxury, but it is healthful and nourishing. It is not a necessity in the usual sense of the word, nor is any other sweet. Sugar is so generally used in this country that we regard it as a necessity. But it is not. I suppose there are millions of people who scarcely taste sugar. And there are thousands of families, largely farmers, too, in this country, who scarcely know the taste of honey. They do not keep bees, and when they wish to gratify the taste for sweet, buy sugar or glucose syrup, because it is cheaper in price than honey.

But why shouldn't the farmer produce his own honey? Is it because of the belief that greater skill and knowledge is required to make this branch a success than other departments of the farm? If this is the prevalent notion I wish to dispel it. It does require some study and some skill, but not more than to raise good stock, or to grow good crops. If a farmer raises nothing but scrub cattle and hogs, and gets a good crop of corn only when everything is favorable, he will probably never have much honey to sell, and will doubtless conclude that "it's all luck, anyhow."

But if he knows a good cow from a poor one, and knows how to raise the good one; if he knows how to get a good crop of corn when many of his neighbors have only nubbins, he can master all the intricacies in bee-keeping without lying awake nights, or infringing on his time in harvest.

I believe the person who gets the most pleasure out of producing honey is the one who does so in conjunction with some other business. His whole soul is wrapped up in the one dollar-and-cent idea. It is chiefly produced for his own table, or to give pleasure to his friends.

I wish, however, to caution the reader, if he thinks seriously of getting bees, to inquire if his locality is adapted to the production of honey. Not every prairie farm is an ideal bee-paradise. If no linden grows within a mile or two, and if white clover is not plentiful enough to yield a surplus, then two of the chief sources of white honey in the North are wanting. Still there may be an abundance of other flowers for a few colonies. Spanish-needle, heart's-ease, the asters, and a great variety of other wild flowers can be utilized and made profitable if not too many colonies are kept in one locality.

If a person who wishes to keep bees has had no experience, he should not buy more than a colony or two to start with. Spring is the best season to purchase. Buy as near home as possible. Talk with some one who has made the subject a study. Buy a good book on bee-keeping, and after a little, if the subject proves interesting, subscribe for a bee-paper. You will grow with the business naturally, furnish your table with a dainty luxury that takes the places of sauces, is always acceptable to company, and at the same time the study of the subject will prove to be both pleasant and profitable.

Forest City, Iowa.

Changing the Loose Hanging Frames to Fixed, Etc.

Written for the American Bee Journal

BY DR. C. C. MILLER.

J. W. Tefft has sent me a sample of his plan of changing common hanging frames to fixed frames. He nails on a little strip of wood on each side of the end-bar at the upper end, making it after the fashion of the modified form of the Hoffman frame favored by Mr. Root, that is, on one side of the end-bar is nailed a square piece, and on the other side a three-cornered piece, thus making a sharp edge of one frame fit against the flat surface on another frame. Those who want to change loose to fixed frames, will not find it difficult to follow this plan, although I hardly believe the sharp edge will be permanently favored by those who are troubled with much propolis.

An easier, although no better way, is to nail a piece on only one side of the end-bar. Suppose your end-bar is ⅞-inch in width and you want your frames to hang 1⅜ from centers. That leaves a half inch between one end-bar and its neighbor. So, nail on one side of one end-bar, near the top, a piece perhaps 2½ inches long, half an inch wide, and the same thickness as the end-bar, only nail it on the opposite side. I arranged some in this way that give very good satisfaction.

CAN BEES PUNCTURE FRUIT ?

On page 759, Geo. A. Stockwell says they can, adducing as proof the fact that they can bite hard wood. At one time I held the same view, and expressed it in a convention of bee-keepers. The younger Dadant brought me up standing, somewhat after this fashion—I can't give the words, but this is the idea :

"You can bite in two a piece of broken plaster from the wall. That wal-beside you is of the same material, there fore you can bite it. Now stand facing the wall, and bite a hole in it."

He had me.

Every bee-keeper of experience knows that bees can and do gnaw wood, but that doesn't prove that they can gnaw sound fruit. The shape has something to do with it. You might find it a difficult thing to bite into a pumpkin or a foot-ball, although you might readily bite into the same material if it were different in shape. The assertion that sound fruit has no attraction for bees, "needs confirmation,' 'as the newspapers say. If they tear open some flowers to get at their sweets, why would they not tear open the skin of fruits, if they could ?

Marengo, Ill.

Queen-Breeders and Queen-Buyers—Suggestions.

Written for the American Bee Journal

BY J. F. EGGERS.

Accidents will happen in the best of families. So will some of our best colonies turn up queenless in the early spring. Being anxious to save these colonies we order queens at once from a breeder whose location and reputation would seem to warrant the prompt filling of our orders. We count the days, expecting the queens by return mail, for the old bees will die, and of the young bees there are few, if any. Even if queen-cells are present, the drones are missing, or so few in early spring that there is little chance for young queens to become fertilized.

Return mail brings us the notice that our order has been received, and will be filled "in a few days." We would rather have received the queens than the notice, but as the queens are to follow in a "few days," we go home contented, though we know that each day lost means so many hundred or thousand bees less in our queenless colonies.

We go to the post-office every day for a week or two, until at last we find, "Mortal hopes defeated and o'erthrown; are mourned by man, and not by man alone," for our queenless colonies have reached the stage where comes in "The good old rule—the simple plan, that they should take who have the power, and they should keep who can." Robbers will soon finish weak queenless colonies, and when at last the queens arrive, they are too late to be of any use to us.

Now I do not wish to blame or decry queen-breeders, although I have been served thus repeatedly. I know the nature of their business is such that disappointment cannot always be avoided, but as we bee-keepers are laboring to advance our calling and improve our methods in every conceivable way, should we not find a way out of this dilemma, which is so trying and ruinous to all concerned ?

If queen-breeders would return the order and money when they see that they cannot fill the order in less than two or three weeks, the apiarist might gain time by ordering elsewhere, or make use of his queenless bees otherwise, instead of waiting from day to day until they are beyond redemption.

We, however, wish to preserve the colonies, and should not give up anything of value if it can be managed so as to retain it. Let us go to the hive and note the energy, the united efforts of the little workers. We know what they accomplished by the many working together as one. Could not the queen-breeders of our country form a kind of "colony," and work together so that if one is unable to fill all orders *promptly* he might send some to his nearest competent neighbor? Rules and regulations would have to be worked out carefully, and be understood by all members of the "Queen-Breeders' Colony." Then, with the unity, industry, good-will and interest for the welfare of their "colony," that is displayed by our pets, the bees, there ought to be an improvement made which would benefit both the breeders and the buyers of queens.

Grand Island, Nebr.

Experiments in Apiculture Made in 1892 at the Michigan Experiment Station.

Reported to the Department of Agriculture

BY J. H. LARRABEE.

(Continued from page 19.)

WAX SECRETION.

To determine the amount of honey consumed by the bees in secreting one pound of wax, this experiment, first undertaken in 1891, was repeated this year. As the conditions were much more favorable, the results were very gratifying. There was entire absence of a natural honey-flow, the weather was favorable, the colonies were of the same strength, and in prosperous condition, they took the food rapidly, and built the comb readily. The result gives a less amount of honey as necessary to be fed the bees in order to have one pound of wax secreted than was obtained in this experiment last year. This was to be expected because of the more favorable and exact conditions.

Two colonies were taken which I have designated as Nos. 1 and 2. No. 1 was given a virgin queen, and no comb or honey. No. 2 was given a virgin queen and empty combs. It was noticed that the bees did not fly from either of these hives as vigorously as from the others of the apiary, and that No. 1 was more quiet of the two. Twenty-four and a half pounds of food were given, and almost exactly one pound of wax was secreted by No. 1. By weighing the combs before and after being melted, and taking the difference, the amount of pollen was ascertained. In both colonies the young queens had begun to lay, having been fertilized during the ten days the experiment was in progress. I now feel confident that more careful work on the part of others who have undertaken to solve this question will give practically the same results as are summarized below:

COLONY NO. 1.

	Lbs.	Oz.
Weight of bees	7	5
Gross weight, Aug. 2, with bees	27	8
Gross weight, Aug. 12, with bees	42	10
Gross gain in weight in 10 days	15	2
Feed given	24	8
Minus honey extracted	12	8
Leaves honey consumed	12	
Honey consumed by No. 1 in excess of No. 2: 12—4=8 pounds		
Wax secreted by No. 1		15½
Pollen in combs at close	1	8
Honey, wax, and pollen removed (8 lbs. honey consumed in secreting 15½ ounces of wax)	14	15½

COLONY NO. 2.

	Lbs.	Oz.
Weight of bees	7	3
Gross weight, Aug. 2, with bees	34	4
Gross weight, Aug. 12, with bees	56	3
Gross gain in weight in 10 days	22	4
Feed given	24	8
Minus honey extracted	20	8
Leaves honey consumed	4	
Honey consumed by No. 1 in excess of No. 2: 12—4=8 pounds		
Wax secreted by No. 1		
Pollen in combs at close	2	
Honey, wax, and pollen removed (8 lbs. honey consumed in secreting 15½ ounces of wax)	22	8

PLANTING FOR HONEY.

There were in bloom at the station this season three acres of sweet clover (*Melilotus alba*) sown in June, 1891. It was sown upon rather poor clay soil, yet it made a fair growth last fall, and came through the winter in good condition. It began to bloom July 8, and continued in bloom until the 20th of September. The period of greatest bloom and honey secretion was from July 20 to Sept. 1. It grew rapidly, and was very rank, reaching a height of about six feet. The amount of bloom was great, and the bees were continually busy upon it, yet during the period from July 24th to Aug. 10th, while it was in full bloom, and while all other natural sources were absent, no honey of any appreciable extent was gathered, and the hive upon the scale lost in weight. Probably some honey was obtained during the season from this sweet clover, but in such limited quantities as to make any estimate of the value of the plant as a honey-producer impossible. At the present time the ground is covered with brush, so that labor will be necessary in clearing the land before plowing can be done.

With the idea of obtaining an opinion of the value of sweet clover as a silage plant, an alcohol barrel was filled with the cut stalks, solidly packed, and sealed tight. This was done on July 14th, just as the clover was getting fairly into bloom, and while the stalks were yet tender and nutritious. On Sept. 23rd the barrel was opened, and the ensilage was fed. A horse that had previously eaten corn silage ate it very readily, but another horse and a cow that had never eaten silage would not touch it. Several experts upon the subject pronounced it excellent. There is no doubt but that it would be a very desirable plant for the purpose if the feeding value per acre could be made equal to that of corn. An estimate made from the amount cut for silage gave between 6 and 7 tons per acre. Although its feeding value may be much higher than that of corn, it is still doubtful if it will pay to use it for this purpose alone, from the above estimate.

In concluding these experiments in planting for honey carried on by Prof. Cook, and now concluded for the present, I desire to say that no results have been obtained with any plant sown or planted for honey alone that will warrant the bee-keeper in expending money and labor in this direction. Bee-keepers have in the past spent much time and money in the effort to cultivate some plant for the honey the bees may obtain from its flowers. In no case coming under my observation have these efforts been a success, and the practice has never been continued at a profit. Therefore, let me caution all apiarists against spending money in the attempt to cultivate at a profit any flower for honey alone. Bee-keepers should cease these useless efforts and turn their attention more persistently to extending the area of all wild honey-producing plants, and urging upon all the superiority of Alsike clover and Japanese buckwheat as farm crops, and the linden as a shade tree.

Agricultural College, Mich., Nov. 17.

(Concluded next week.)

Bees Swarming Out—Treatment of Foul Brood.

Written for the American Bee Journal

BY RANDOLPH GRADEN.

I have seen the question asked in the BEE JOURNAL more than once, as to what caused the bees to swarm out and leave their hive with brood and plenty of honey in the spring of the year, but I have as yet not seen it fully explained. There are several causes, but the principal one, especially where the bees have been wintered upon the summer stands, is cold weather; for in the spring when the bees are rearing brood rapidly, and cold, windy, cloudy weather, too cold for the bees to fly, sets in for several days, and some times as much as eight or ten days at a time, and the bees are greatly in need of water, and also pollen, they will venture out for water and pollen, and become chilled and perish. Still the brood is hatching out in the hive, and in need of water, and the old bees become less and less every day, so that in a few days the older bees are almost all lost, which, of course, raises a commotion in the hive, so much so that when the weather turns warm suddenly, and the sun shines warm, the bees make a rush to get out of the hive, and in the excitement the queen and all rush out, and very often the queen gets lost, and the bees being nearly all young, rush for some other hive, and enter it, or scatter about; and if the queen is not found, all is lost except the hive and contents, which may be used to hive an early swarm of bees, provided, however, that such hive must be looked after, as the moth-miller may destroy the combs.

Still, some may think after reading Mr. McEvoy's article in the AMERICAN BEE JOURNAL for May 11th, that such hives will become foul broody. Any fair-minded bee-keeper knows that cannot be true, otherwise there would not be an apiary in the length and breadth of our land, that contained a dozen colonies of bees or over, any great length of time, but what would become foul broody sooner or later. Still, there are many bee-keepers, yes, old bee-keepers, that say they never saw foul brood.

If I am asked as to how foul brood originates, I will have to say as does Dr. Miller, "I don't know," and as Prof. Cook would say, "How does diphtheria and scarlet fever originate?" which was about the substance of a reply he gave me when I asked him that question some time ago.

How to get rid of foul brood is a very

easy question for me to answer, as I would sooner rid a colony of bees of the disease than to transfer a colony of bees from an old box-hive to a movable frame hive by the method of taking the box apart and tying the combs in the frames, etc. The reason I do not give my method of curing foul brood in this article, will be given in my next article on that subject, which will soon follow, but I will say, however, to those who have my method of treatment, to follow it, and not be misled by Mr. Evoy's article or method

I have his method in Bulletin No. 33, of the Department of Agriculture, and dated Toronto, July 15, 1890, which method I happened to try while experimenting with the disease, which was precisely the same except that I used no comb foundation, and instead of leaving the bees four days I left them six days; still the colony became diseased again soon after; but I am happy to say that that colony of bees and method of treatment led me on to the discovery of my method, in which I have never failed to cure the disease.

Wayne Co., Mich.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.

July 20.—Carolina, at Charlotte, N. C.
A. L. Beach, Sec., Steel Creek, N. C.

Aug 15.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

☞ **In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.**

North American Bee-Keepers' Association

President—Dr. C. C. Miller....Marengo, Ills.
Vice-Pres.—J. E. Crane.......Middlebury, Vt.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.

A Binder for holding a year's numbers of the Bee Journal we mail for only 50 cents; or clubbed with the Journal for $1.40.

The Iowa State Fair will be held at Des Moines on Sept. 1st to 8th, 1893. We have received a copy of their Premium List, which may be had by addressing the Secretary, John R. Shaffer, of Des Moines, Iowa. The Apiary Department of the Fair is in charge of Mr. F. N. Chase, of Cedar Falls, Iowa, and the liberal list of cash premiums are as follows:

BEES, PRODUCTS, SUPPLIES AND PLANTS.

Note.—Produced by the exhibitor. In awarding the premiums on the different entries of bees, the quality of queens and bees will be considered. The bees should all be in one-comb, observatory hive, with glass on both sides. No premium will be paid on bees that are not pure, or on bees entered in classes in which they do not belong.

Italian bees, in observatory hive.	$5 00	$3 00
Carniolan bees, in observatory hive..........................	5 00	3 00
Syrian (Holy Land) bees, in observatory hive	5 00	3 00
Dalmatian bees, in observatory hive..........................	5 00	3 00

Note.—In awarding premiums in the different entries of honey, the Judge will give equal consideration to the quality of honey, and to the style of packages in which it is exhibited, as regards beauty and desirableness for purpose of marketing.

Exhibitors at time of making entry must file a statement with the Secretary, that the honey they exhibit was produced in their own apiaries.

Best and largest display of comb honey..........................	$25	$10	$5
Best and largest display of extracted honey..................	25	10	5
Best, largest and most attractive display of comb and ex-tracted honey, wax, bees, implements, etc............................	25	15	10
Best case comb honey, clover or linden.........................		5	3
Best case comb honey, fall flowers		5	3
Extracted honey, clover or linden, 20 pounds......................		5	3
Extracted honey, fall flowers, 20 pounds........................		5	3
Best display of beeswax, not less than 50 pounds................		8	4
Display honey plants, pressed, mounted and labeled...........		5	3
Best display culinary art, sweetened with honey...............		5	3

All bee-keepers and all manufacturers of hives, frames, sections and foundation, and of bee-keepers' implements and materials are requested to exhibit the same. The best facilities will be afforded exhibitors to show their goods to advantage. It is the custom of the society not to offer cash premiums on implements; hence, none are offered in this department, except as noted in display. Diplomas may be awarded, subject to the approval of the Board, on recommendation of the Judge examining the articles.

LETTER BOX
REPORTS PROSPECTS &c.

☞ **Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.**

Splendid Prospects for Honey.

Bees have done very little here this spring, as it was too cold and windy. Horsemint is yielding some honey now, though I do not expect much from that source, as there is very little of it. Cotton, sour-wood and the gum-tree look flattering at present, and I hope for a good crop yet. Wild morning-glory is springing up by the millions, and it hardly ever fails to yield a good crop. Last year one of my best colonies gathered 80 pounds of surplus from it, and it was the finest honey I ever saw.

Farm crops are fine here. Corn is in full roasting ear. Cotton will be in full bloom in two weeks. Peach and pear trees are loaded with fruit. So we have nothing to grumble about.

I wish to congratulate Mrs. Atchley for her interesting department in the good old AMERICAN BEE JOURNAL. I want to go to the World's Fair next October, if I can get away, and expect to have a grand time. I hope Mr. A. I. Root and Dr. Miller will be there, and oh, what a grand time we will have! W. S. DOUGLASS.

Lexington, Tex., June 18, 1893.

Seven Months Without a Flight.

Yesterday was the first day that my bees did not want to rob combs that I have been handling more or less all spring. It is raining to-day (June 9th), and prospects are good for white clover, raspberry, blackberry, and other bloom of less consequence, but it is going to take the cream of the white clover season to build up what colonies are left after the most disastrous spring I have seen.

With Aug. 31, 1892, closed the best honey season I have ever seen. September was cold and wet, bees stopped breeding, winter came very early and stayed—well, it was May 7, 1893, before all my bees were out of the cellar. I put 98 colonies away in the fall, and lost 30 per cent. in wintering, and fully as large a percentage since. Up to a week ago bees would act as though they were being poisoned, so many crawling and tumbling around on the ground, and a great deal of brood perished for the want of heat and food. I kept doubling up, but bees would vanish, and they beat all previous records in that line.

I see some bee-keepers record their bees without a flight for 4½ and 5 months, but what would they think of bees without a flight for over 7 months? They would probably think that we needed to study the wintering problem in earnest. After the past season's experience, I am more than ever in favor of young bees for wintering, but as there are so many other requirements needed for the successful wintering of bees here in the North, the bee-keeper is fortunate indeed to be able to combine all of them at the approach of a long winter. WALTER HARMER.

Manistee, Mich.

Sowing Buckwheat for Honey.

On page 821, Mr. J. L. Hersey wonders why his bees don't work on buckwheat (June 5th). Now, I am only a starter, but I continually experiment and note results. In this way I expect to bring my rising apiary to the highest standard, and obtain the most honey possible with the least labor. I have therefore concluded that it won't do to sow buckwheat for honey earlier than July. Bees will never work on it while they have anything else. Even if they do, it wouldn't be very practical to have them store the dark, strong honey with the clover and linden.

The idea of sowing buckwheat is to give the bees something to work on during the drouth in the hot summer months. Mr. Root sows it about July 15th, whenever he sows. The Japanese variety is the best; sow 3 pecks per acre. It is best to use the drill. Buckwheat is excellent for artificial pasturage. Good ground makes good yields.

Any questions on the above, by readers of the "Old Reliable," will be cheerfully answered. J. C. WALLENMEYER.

Evansville, Ind.

An Experience with Bees.

On June 15, 1892, I received by express 6 nuclei. The boxes were broken, and many of the bees were lost, and most of those not lost were dead, but the brood was all right, and I saved five of the six queens. I bought two more queens, and built up to 13 colonies, which I wintered successfully on the summer stands, in chaff hives. Early in the winter the brood-nests of two colonies were robbed, leaving what they did not carry off exposed fully to one of our bitterly cold wind-storms. In March I found the bees still struggling for existence, but queenless. I got a couple of queens early from Louisiana, and all are now doing very well.

The first of April all started out like a boom—brood, pollen, honey, etc.—but the latter half of that month gave the bees a black eye. The morning of May 1st the mercury stood 11 degrees below freezing; the flowers were all killed, and things generally looked discouraging. On Decoration

Day scarcely a wild flower was to be found. We had no rain for months, and no water in the river with which to irrigate; but all at once down came the river and filled the irrigating ditches, and up came the clouds and gave us a thorough wetting of rain-water. Talk about a "desert blossoming like a rose!"—a rose is no name for it when the alfalfa is in bloom, and the bloom is already beginning to show, but we have already lost one crop of hay by reason of no water. Had the Arkansas river got down as early as usual, we would have secured during the season four crops of hay, or two of seed. JAMES H. WING.

Syracuse, Kans., June 3, 1893.

Having a Good Honey-Flow.

We are having a good honey-flow now, and bees are doing well. E. S. MILES.

Denison, Iowa, July 6, 1893.

A Beginner's Experience.

I purchased 7 colonies of bees last winter and lost 3; one starved to death, another perished with snow blowing in the hive (bees are left out all winter here), and the other was weak, and the ants got in and destroyed them before I knew that they could do it. The remaining 4 colonies are doing well. They filled up with bees and honey, and I think they are just waiting for a fine day to swarm.

I am well pleased with the BEE JOURNAL, and do not know how any beginner could get along with bees without it. I have been one of Mrs. Atchley's pupils, and always glad to read anything from her, and feel myself indebted to her and all the rest of those good people who are so ready to help the beginner, though perfect strangers to each other. J. T. BROWN.

Sumas, Wash., June 14, 1893.

Bees Doing Better this Year.

My bees have not done anything to speak of for two years, but are doing better this year. W. A. HARRINGTON.

Irene, Ills., July 2, 1893.

Too Much Rain and Swarming.

Last year I extracted honey the first week in June, and got at least 30 pounds of fine white clover honey per colony. Then the daily rains set in for 60 days, and the nectar was kept washed off the flowers. This year, the late spring retarded the honey-flow, and so far I have had no honey, and the bees have only what little they had stored. Since the 2nd of this month the rains set in again, and now there is little or no honey.

Can any of the readers tell me whether they are any better off? and what can I expect later on in the season?

I attribute this deficiency in the honey-flow due greatly to so much swarming during the month of May (I have nearly doubled the number of my colonies), as I believe one works to the detriment of the other—the more swarming, the less honey. My 52 colonies of Italians are very strong. I have not had a swarm since May. I hope soon to be able to report better prospects. P. E. COUVILLON.

Carencro, La., June 24, 1893.

From Four Increased to Nine.

I had 4 colonies the first of May, and they have swarmed five times. I now have 9 colonies. The first swarm came out on June 6th. I think the BEE JOURNAL is very instructive and interesting to any one who keeps bees. GEORGE RACKLEFF.

Woodfords, Me., June 27, 1893.

Storing Surplus Honey Fast.

Bees wintered badly here, the loss being from 30 to 100 per cent. My bees are storing surplus honey faster than ever before, from alfalfa. I began taking off sections to-day. Those of us who saved our bees expect to reap a good harvest. Honey will bring a good price this year, if put up well. J. S. SCOTT.

Springville, Utah, June 28, 1893.

Bees Doing Well So Far.

The bees have been doing quite well so far this season, but the weather is so dry that they cannot gather much honey any longer unless we have some rain. Bees have not been doing well for the last three years, in this locality. They were not able to make a living—I had to make it for them. Last season I did not get a single swarm. I had to feed them sugar syrup to keep them from starving. And of course where there are no swarms there are no young queens. I lost five queens last winter, so my bees were reduced from 65 colonies to 60. FRED BOTT.

Wabasha, Minn., July 3, 1893.

He Makes the "Amende Honorable."

I wish to make the *amende honorable* to Mr. John McKean, as he thinks (see page 759) that I treated his letter rather severely; but I hardly know how to go about it. I certainly do not wish to make any one the butt of ridicule, yet I do wish to assist to the extent of my ability to stamp out such errors, by whoever made and wherever found. And where argument cannot be brought against it, as in this, and, I am sorry to say, many other cases, I consider ridicule a fair weapon to be used. I cannot say that I regret having written the article as I did, but I am sorry that Mr. McKean feels hurt over it personally, and has taken it in the spirit that he seems to have done. In conclusion, I wish to express a regret that we cannot all acknowledge our errors, and make our apologies, as kindly and gracefully as he has done.

Musson, La. DR. A. W. TUFTS.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, July 8, 1893:

CHICAGO, ILL.—We quote fancy new honey at 18c.; No. 2, at 16c.; amber, 15c. Beeswax, 22@25c. We have had some shipments of fancy new stock which sold at once. J. A. L.

CHICAGO, ILL.—There is not much movement in comb honey. Prices range at from 12@16 and 17c., all good grades bringing 15@17c. A few cases of the new crop have arrived and brought the top prices. Beeswax is very steady at about 25c. Extracted honey is moving very slowly at from 6@8c.
R. A. B. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.
Beeswax—20@23c. C.-M. C. C.

CINCINNATI, O.—New extracted has commenced to arrive lively, and is in fair demand at 5@8c. There is a slow demand for comb-honey, and no choice on our market; prices nominal.
Beeswax—Demand good, at 22@25c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—New crop of extracted is arriving freely. Market is quiet and demand limited. Fancy grades sell at from 7@8c.; common to fair, at from 60@70c., as to body, color and flavor. Beeswax, 26@27c.
H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality, 1-lbs. Beeswax is neglected at 22@23c. S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 6@7c. No beeswax on the market. H. & B.

BOSTON, MASS.—Honey is selling slow and prics are lower. Best 1-lb. comb, 16@17c.—Extracted, 8@10c.
Beeswax—None on hand. B. & R.

ALBANY, N. Y.—Our honey market is dull at present. There are some receipts of new extracted, but no reliable price established yet. Beeswax is more plenty, at 27@28c. for good color. H. R. W.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white conb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

* * *

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN.
28 & 30 West Broadway

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & CO., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line**, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE—High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

TO EXCHANGE—A 4x5 Photograph Outfit, for bee-keepers' supplies or musical instruments. R. C. HATCH.
Central City, Iowa.

FOUL BROOD CURED without drugs or medicines of any kind. I will go to any foul-broody apiary, and GUARANTEE to cure it without destroying bees or interfering with brood-rearing. No charge for time, car fare, or services, if not successful. Write to me for terms, etc. NORMAN AUSTIN,
26Atf 6441 Wright St., Englewood, Ills.

WANTED TO SELL OR EXCHANGE for good Florida, Arizona or Southern California property, situated in a good honey locality—an established Wall Paper, Paint, Picture-Framing and Artists' Material business in a thriving city of 10,000. Also, a Printing Office, with Weekly Newspaper and Job Work Trade, established. Correspondence solicited. Satisfactory reasons for wishing to sell. Address,
CORELL & HILL, Titusville, Pa.

READERS Of this Journal who write to any of our advertisers, either in ordering, or asking about the Goods offered, will please state that they saw the Advertisement in this paper.

Advertisements.

SPECIAL MATED QUEENS.

DURING August or Sept. I shall SELECT about 100 of those CHOICE

Yellow All Over Golden Italian Queens

and have them fertilized by some very CHOICE DRONES, for the purpose of getting some breeding Queens, and as I cannot test all of them, I will sell some, **warranted** to get all 4 and 5 Banded Bees, at $1.75 each; or **without any warrant,** $1.25.; in either case they must be ordered and paid for **at least** 30 days in advance. This is a rare chance to get some Fine Breeding Queens Cheap!

Safe arrival guaranteed, and every Queen warranted to get **very yellow drones.**

Money Order office, Cable, Ill. Save this ad.

S.F.Trego, Swedona, Ill

☞ This looks like a good bargain.—Ed.

Mention the American Bee Journal.

HONEY AS FOOD ❋ ❋ and MEDICINE.

THIS is a little 32-page pamphlet that is just the thing needed to create a **demand** for HONEY at home. Honey-producers should scatter it freely, as it shows the valuable uses of Honey for Food as well as for Medicine. It contains recipes for making Honey-Cakes, Cookies, Puddings, Foam, Wines etc. It is intended for consumers, and will be a great help in popularizing honey among the people everywhere, if the pamphlet is liberally distributed.

Prices, prepaid—Single copy, 5 cts.; 10 copies, 35 cts.; 50 for $1.50; 100 for $2.50; 250 for $5.50; 500 for $10.00; or 1000 for $15.00.

When 250 or more are ordered, we will print the bee-keeper's card (free of cost) on the front cover page. Address,

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

Mention the American Bee Journal.

PRICE REDUCED ON SECTIONS.

WE have several thousand 1 15-16, 1⅞ and 7-to-the-foot 1-lb. White Sections, which we offer at $2.75 per M; 2000, $5.00; 5000 for $12.00; 10,000, $22.50. One-lb. Cream 1 15-16 and 1⅞, at $2.00 per M; 5000, $9.00. These are all 4¼ square. We also have **Hives** Nailed and Painted. Address,

H. G. ACKLIN,
1024 Mississippi St., - ST. PAUL, MINN.

☞ Northwestern Agent for A. I. Root's Bee-Keepers' Supplies.

Mention the American Bee Journal.

ESTEY & CAMP

CHICAGO, State & Jackson Sts. ST. LOUIS, 916-918 Olive St.

A Strictly Reliable Source for

PIANOS ❋ —: AND :— ❋ ORGANS

Of All Grades, Sizes and Colors.

Comprising the Celebrated

DECKER BROS.; ESTEY; BRAMBACH AND CAMP & CO. PIANOS AND ESTEY ORGANS.

Renting, Tuning, Repairing, Etc.

Mention the American Bee Journal.

JUST SPLENDID.

"Mr. H. Alley—The Queen I got from you last fall is just splendid. She is the best Queen in an apiary of 150 colonies. I would not take $10 for her.—John A. Pease, Monrovia. Calif."

Price of such Queens is $1.00 each.

HENRY ALLEY, Wenham, Mass.

Mention the American Bee Journal.

Are YOU Coming to the ❋ ❋ WORLD'S FAIR?

If so, you should secure **Accommodation in advance** of coming to Chicago

Young Ladies Specially Cared For

You are invited to correspond **at once** with

MRS. J. P. COOKENBACH,
987 Wilcox Ave., CHICAGO, ILL.,

Who will be pleased to help all desiring to have a comfortable and pleasant place to stay while visiting the World's Fair, and at very **reasonable rates.**

Reference: By permission, "**American Bee Journal.**"

Mention the American Bee Journal.

ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., JULY 20, 1893. NO. 3.

EDITORIAL BUZZINGS

A Poetical Straw is the following from Dr. Miller's "Stray Straw" field in last *Gleanings:*

Bees gather sweet honey
On days that are soney,
And store it away in the comb;
It seems very foney
That thus they make money
As far o'er the meadows they romb.

That reminds us of—

Homb, homb, sweet, sweet homb,
Be it ever so hombly,
There's no place like homb.

◆

The Season of 1893 promises to be the best for bee-keepers in years, if we may judge by the reports received so far. Some supply dealers have been receiving orders by telegram lately, which shows that honey is being gathered rapidly and almost unexpectedly. We hope that everybody will be able to get several good tastes of honey as the result of a prosperous year for bee-keepers. If possible, keep up the price on your honey, and sell as much of it as you can in your home market.

◆

Mr. A. C. Hammond, of Warsaw, Ills., died of heart failure on June 20, 1893. He was nearly 63 years old, and a very prominent horticulturist of this State. The *Orange Judd Farmer* says: "In Mr. Hammond's death the State Horticultural Society loses an efficient and faithful Secretary, and the cause of horticulture one of its bright lights; the community in which he lived, and the church of which he was a member, sustain an irreparable loss; the wife and son a loving husband and father, a wise counsellor and guide."

◆

Hon. Eugene Secor, of Forest City, Iowa, we are pleased to learn, has been appointed Judge of the Apiarian Exhibits at the World's Fair. This is an honor that comes to but few in a lifetime, and Bro. Secor will fill the position most eminently. No better, or more acceptable, appointment could have been made, for Mr. Secor stands high in the estimation of not only bee-keepers all over the country, but all who know him love to honor him as one who really merits all that they can bestow upon him. We congratulate Bro. Secor, the World's Fair Managers, and also the apiarian exhibitors, upon this wise appointment.

◆

Plants as Barometers.—In the *Boston Commonwealth* we find an item which says that a French observer, named M. Cana, has been for some time past closely observing the action of several common plants when the barometer indicated a change of weather. He found that if the heads of clover and other leguminous plants stand upright there will be rain.

If the leaves of sorrel turn up it is a sure sign of storm, which is also foretold by the leaves of willow grass slowly turning up. The closing of the flowers of convolvulus indicates rain, which, as is so generally beieved, may be said of the flowers of the pimpernel, and also the hibiscus flowers.

When the flowers of the sorrel open it is said to be a sure sign of fine weather, but if they close it will rain. If the flowers of the carline thistle close there will be a storm. The expanding flowers of cinquefoi suggest rain, but their closing means fine weather.

The African marigold flowers close before rain; while the scales of the teasel, pressing close together, pretty surely mean rain.

◆

No Bee-Keepers' Guide have we received since the April number. We wrote to Mr. Hill, its publisher, but not receiving any reply to our request, we concluded that perhaps the publication of the *Guide* had been discontinued. It may be that it is taking a "vacation" for the summer, and will be on hand again when cool weather appears. Then, it may be possible that Mr. Hill found it rather up-Hill work to keep up its publication, although it was in its 17th year.

◆

Wintering Bees Under Glass has been experimented with by Mr. E. L. Pratt, of Beverly, Mass. Here is what he says about it in the last number of the *Enterprise:*

> It has long been a hobby of mine to winter and spring bees under glass, in the hope that I could force them along in the spring to early swarming, by the aid of the sun, *a la* hot-house. For three years I have carried on experiments in many different ways, some of which were successful, while others were a great loss to me in time and bees. I believe a winter case can be made to do the work I am now doing with my glass bee-house, and another season I shall fit some up with glass on the same principle of my glass house. Now that I have discovered the secret of success with the glass arrangement, I have no doubt that it will work as well as the house, thus doing away with the expense of a large structure. If the winter case plan will work well, the case now in general use can be used, and the only expense will be inserting a light of glass at the front, and the addition of a ventilator or two. We will see.

◆

Apiarian Experiments.—Owing to being crowded with other and more pressing matter this week, we were compelled to defer until our next issue the completion of Mr. Larrabee's interesting report of experiments made at the Michigan Experiment Station last year.

Bro. Alley gave us a very kind notice in the July *Apiculturist*, which reads as follows:

> I tell you, readers, Bro. York is doing wonderfully well with the old AMERICAN BEE JOURNAL. Each issue of that paper is certainly an improvement upon the previous one. I am really surprised at the advancement Bro. York is making.

We wish to thank Bro. Alley for his kindness in thus speaking of us and our work. We are glad, also, to notice that he didn't refer to our journal as simply "A. B. J.," as quite a number of our fellow editors have unwisely persisted in doing. What sense would there be in our saying "G. in B. C." when we meant *Gleanings in Bee-Culture?* Or "B.-K. R." for *Bee-Keepers' Review?* Or "P. B.-K." for *Progressive Bee-Keeper?* Or "A. A." for *American Apiculturist?* No one except a professional guesser or interpreter could explain their meaning.

It is all right to abbreviate when writing personal letters, but when it comes to publishing we don't believe in blind abbreviations. We want to thank the editors of both the *American Apiculturist* and *Gleanings in Bee-Culture* for their efforts to set a good example in the line suggested above.

◆

Glucosing Honey in California is thus written about by Mr. C. N. Wilson, in the *Rural Californian:*

> There is much tribulation in certain quarters about California glucosed honey. After some close attention to this matter, we are of the opinion that there is a "great cry and no wool," as to the adulteration of honey with glucose in Southern California. It is a fact that no glucose is manufactured on this coast. The freight charges on the article coupled with the expense of adulterating our honey here, would leave but a small margin for the manipulator. There is a statement going the rounds of bee-papers, coming from a would-be shining light, that he knows of extensive mingling of honey and glucose in this State. If there is, that party should at once proceed to prosecute the gulity parties, as our California law furnishes an ample remedy in such cases.

◆

Honey as Food and Medicine, if generously, yet judiciously, distributed, will help to sell almost any quantity of honey. Try a few of them and see what splendid "salesmen" they are. We have increased the size from 16 pages to 32, though the prices are just the same as before. See page 96 of this issue for further particulars.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Getting Bees into the Sections.

How can I force my bees to work in the sections? I have 7 colonies that are bound to stuff the brood-chamber full, until there is not an empty cell in which the queen can lay an egg. They are very strong colonies. I have tried bait sections, and smoking them up into the supers.

We are having a good honey-flow, 10 colonies giving 240 pounds of section honey so far; but it is very hot and dry, and I am afraid the flow will be short.

L. B. THATCHER.

Somerville, N. J., June 20, 1893.

ANSWER.—We'd like the chance to look in on your bees, to see a case where they were cramming the brood-frames and refusing to touch combs put in above as bait. There must be such cases, as they are reported now and then, but we have seen bees fill the bait section with honey, when only a little honey was being stored, and there was room left in the brood-frames.

Without being on hand to see them, the best thing we can suggest is to put a piece of brood-comb in one of the sections as bait. If you have some brood you can cut out and put in as bait, they will not fail to take care of it if they can get up to it; and once there, they will almost certainly do more work there than merely to take care of that brood.

Susie's Troubles at Swarming-Time.

DEAR EDITOR:—My papa takes the BEE JOURNAL, and thinks there is no paper like it. But mamma says she is going to stop it, because papa talks so much about Jennie Atchley. But mamma don't mean it.

Papa has been in the bee-business for three years. Papa went away, and his bees swarmed for the first time. We got them to settle. We hived them, then they went away. Papa was sorry when he came home and found his bees gone; and so was I, for I rang the dinner-bell. I rang it so hard that it sprained my wrist. I am only 9 years old.

Will you please tell us what to do to keep the bees at home the next time they swarm?

SUSIE WEED.

Lanark, Ills.

ANSWER.—Bless your dear little heart, Susie, that's a nice letter for a nine-year-old, and if you keep on you may get to be a famous bee-keeper. It is doubtful if it was of any use to sprain your wrist ringing the dinner-bell. Now-a-days, when bees swarm, bee-keepers generally make no racket of any kind, and the bees seem to settle just as well without having any attention paid to them.

Sometimes bees seem to swarm out after being hived, out of pure contrariness, but it makes a great deal of difference how they are treated after they are hived. If the hive stands out in the hot sun, you may be pretty sure they will leave. A nice place to put the hive is under the shade of a tree. If you cannot have that, then shade the hive well in some way. Boards placed over, weighted down with stones, will do. If you live in the country, get some one to mow some long grass, put quite a lot of it on the hive, letting it project on all sides, especially on the side toward the sun, and lay two or three sticks of fire-wood on it to keep the wind from blowing it away.

If you can do so, put your hive in a place where the air can have free access to it. Bees dislike a close corner on a hot day, just as much as you do.

Some bee-keepers practice giving a frame of brood to a swarm. See that your hive is nice and clean, and don't put a swarm in some old, moldy affair, without first cleansing it out.

Let us hear from you again, Susie.

Members of the North American.

At the last meeting of the North American Bee-Keepers' Association in Washington, D. C., how many of the members present were honey-producers? How many bee-editors? supply manufacturers? supply dealers? commission merchants? queen-breeders? editors who are manufacturers?

NEW YORK.

ANSWER.—We are not sure we could answer this question if all the members of the convention at Washington should stand up in a row before us and allow themselves to be catechized; for the different kinds of business are blended together with all sorts of variations.

One man is a hardware merchant, and may keep anywhere from 10 to 300 colonies of bees to produce honey, besides rearing anywhere from 10 to 500 queens to sell. Just where the line shall be drawn to make one call him a "honey-producer" or a "queen-breeder" might not be an easy thing to agree upon.

As the matter stands, however, we have no ready means to decide from the names of the members what the respective calling of each member may be. The different classes mentioned were probably all pretty well represented, as is very desirable that they should be, and as has generally been the case, unless it be commission men, and they have not generally attended conventions of bee-keepers until of late. As they take quite an active part in helping to dispose of the crop, it is quite desirable that they should meet in council with bee-keepers.

◆

Bicycles are getting to be very common now-a-days. We have two for sale, and any one wanting a bargain in a good bicycle, should write to the office of the BEE JOURNAL.

◆

"Bees and Honey"—page 67.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Laugstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Laugstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported	$5 00
Edw. S. Pope, Indianapolis, Ind	25
A Friend	25
George Bland, Easton, O	25
Mrs. Jane Joy, Springtown, Ind	50
Bee-Keeper, Jimtown, Ky	25
Total	$6 25

BIOGRAPHICAL
LANGSTROTH

HON. R. L. TAYLOR.

This week we congratulate ourselves and our readers upon being permitted to read of one who has deserved and won renown as a farmer, business-man, lawyer, bee-keeper and State Senator. Such have been the various fields of usefulness in which the bee-keeper's friend—yes, everybody's friend—the Hon. R. L. Taylor, has so eaarnestly devoted his life.

In *Gleanings* for Nov. 1, 1890, we find the following delightfully written sketch by Prof. Cook, which we are pleased to copy for the benefit of our readers:

To my mind, the most alarming feature of the census just taken is the rapid increase of population in the cities and the corresponding decrease in the rural districts. Who has not noticed, during the past ten years, the constant influx of energy and strength from country to city? The men of push and ability who are leading our enterprises to-day, not only as business, but as professional men, spent their boyhood on the farm. True, we have an Adams family, but we have hundreds of such men as Greeley, Webster, Lincoln, and Garfield, that went from country to city, and carried life, vigor and energy with them. What will become of our cities if the country fails to pour in this new and vivifying power?

Our respected friend, R. L. Taylor, Senator in Michigan, and President of the National Bee-Keepers' Association, had the advantage of country birth. He was born on a farm at Almont, Lapeer county, Mich., Nov. 3, 1839. This was not the only vantage ground of our young candidate for a place of influence in the world. He was the son of Scotch parents, who were pioneers in that new heavily timbered part of Michigan.

We need hardly say more to prove that our friend was early taught to be religious, truthful, honest, and industrious, for how loyal are almost all the Scotch to all these grand principles, which are the very basis of true manhood! When I add to all this the fact that the parents were sturdy and vigorous, able to carve out a home in the forest wilds, I have said enough to show that our friend was born to unusual fortune. The mother, though a pioneer farmer's wife, and mother to fourteen children, still lives in good health, at the age of 79. Ten of the children still survive. President Taylor is the oldest of the six surviving sons. Like most farmer boys, young Taylor worked on the farm summers, and went to a common district school in the winter. At the age of 19 he lost his father, who was carried off by an accident, when the severe and arduous duties of a large farm devolved on our friend. But he had learned to labor, and was equal to the emergency. But our friend aspired to a college education. He taught winters, and *prepared himself* for the classical department of the Michigan University, which he entered in 1862.

R. L. TAYLOR.

In 1865, a thirst for business, which robs so many college students of their diplomas, took Mr. Taylor from the college. He entered mercantile life, which he followed at Almont very successfully for three years. But mere business was not wholly to Mr. Taylor's tastes, and so he spent his spare time—every determined man, however prompt in business, can find spare time—in the study of law. He was admitted to the bar in 1869. In 1872 he was elected Register of Deeds by the largest majority ever received by any county officer of his county. He then moved to Lapeer, where he has resided ever since. Two years later he was re-elected. In 1877 he resumed the practice of law, and was elected Prosecuting Attorney the following year.

At this time, fortunately for apiculture, two colonies of bees fell into Mr. Taylor's possession. His early life and habits had developed a taste for rural life and pursuits that had not left him with his youth. Country air and landscape still lured him toward the country, and led to the purchase of his present beautiful home in the suburbs of Lapeer. His bees increased rapidly, and his interest kept pace, owing, doubtless, to the success which marked his labors from the first. Thus he declined a renomination as Prosecuting Attorney,and very soon gave up the practice of law, that he might devote his entire time to his bees. Thus here, as everywhere, Mr. Taylor, is consistent. He preaches exclusive apiculture for the apiarist, and does what very few of his colleagues in his faith do—he practices what he preaches. He is, perhaps, the largest bee-keeper in our State.

As an apiarist he stands among the first. His cautious, scientific, thoroughly informed mind grapples even with foul brood, and the fell disease is worsted in the struggle. He told me once, as I visited his apiary, that he rather enjoyed the malady, as it was interesting to watch and study it. How few are cautious enough to hold this scourge at arm's length, even though it be right in the apiary!

Mr. Taylor is one of Michigan's best bee-keepers. The American Society is honored no less than Mr. Taylor in his presidency. He is so expert in bee-keeping that he can "feed back" at a profit, and can produce an immense crop of comb honey—his specialty—without any use of separators, and yet take the very cream of the market. Like nearly all successful bee-keepers, he is very ingenious. Everything about his apiary is neat, orderly, and convenient. His invention to fasten foundation in the sections is doubtless one of the very best in use. He uses the new Heddon hive, and would have no other. One has only to see him manipulate these hives and find the queens, to become convinced that, in his hands at least, they are a tremendous success.

Mr. Taylor's style as a speaker and writer is quiet, earnest, but very convincing. He is candid, very cautious, and rather conservative; so those who know him place great weight upon his opinion or judgment. Slow to draw conclusions, his conclusions rarely need reconsideration. In our literature, in our conventions, and, best of all, in his home city, he is a power. His presence is felt to be of signal advantage.

That Mr. Taylor's neighbors appreciate his worth is evinced in the fact that he was elected to our State Senate in 1888, where he was an able and influential member. He is renominated for the position, and, with almost no doubt, will be re-elected.

Mr. Taylor has been a member of the church for over thirty years. He is an elder in the Presbyterian church, and thus again honors, and is loyal to, his Scotch descent. But there is no need to publish the fact that Senator Taylor is a Christian. The fact shines out in all his life and acts. He is a true, clean, reverent man—one of the men that always make us feel better when we have associated with them.

Mr. Taylor has been married for nearly a quarter of a century. His wife is a fit companion for such a husband. Like her husband, she takes great interest in religion, temperance, and all else that is good and helpful to others. Though they have none of those best adornments of the home—sweet, loving children—yet their home is one of those social centers that so richly bless every community where they are found.

A. J. Cook.

As mentioned in the third from the last paragraph of the foregoing, Mr. Taylor was not only renominated as Senator in 1890, but was re-elected.

The latest, and perhaps the best apiarian news about Mr. T., is that he has lately been appointed manager of the Michigan Apicultural Experiment Station. We may now look for something very interesting and exceedingly helpful to the industry of bee-keeping as the result of his efforts as an experimenter in bee-keeping.

We hope that Hon. R. L. Taylor may live yet many years to bless the cause of apiculture with his brilliant mind and labors.

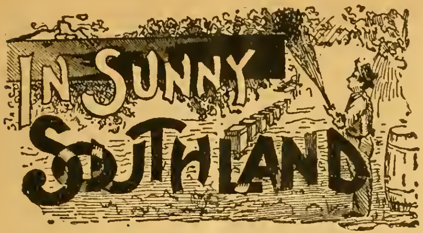
"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the Bee Journal for one year, for $1.70.

"The Winter Problem in Bee-Keeping" is the title of a splendid pamphlet by Mr. G. R. Pierce, of Iowa, a bee-keeper of 26 years' experience. It is 6x9 inches in size, has 76 pages and is a clear exposition of the conditions essential to success in the winter and spring management of the apiary. Price, postpaid, 50 cents; or given as a premium for getting one new subscriber to the Bee Journal for a year. Clubbed with the Bee Journal one year for $1.30. Send to us for a copy.

Almost Every Bee-Book that is now published we mention on the third page of this issue of the Bee Journal. Look over the list and select what you want. For every new yearly subscriber that you secure for us at $1.00, we will allow you 25 cents, to apply on the purchase of any book we have for sale. This is a rare chance to get some valuable apicultural reading-matter, and at the same time aid in spreading helpful apiarian knowledge among your friends.

Dr. Miller's "A Year Among the Bees" is a book of over 100 pages. It commences with the necessary work in the spring, and runs through the entire year, detailing the methods of doing, as well as telling when to do, all that should be done in the apiary. Bound in cloth. Price, postpaid, 50 cents; or clubbed with the Bee Journal for one year, for $1.35.

A Binder for holding a year's numbers of the Bee Journal we mail for only 50 cents; or clubbed with the Journal for $1.40.



CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

No. 3.—Texas and Her Resources.

As the black lands are all about the same as described on pages 780 and 781, we will drop down to south and southwest Texas. Here we strike as pretty a country as eyes ever saw, with its mountains and valleys and broad prairies and fine woodlands.

I will begin near Galveston, and lead you along the first and second tiers of counties all the way around to El Paso, about 600 miles. I will call your attention to Brazoria county first. Here we have a county rich, healthy, and producing fruits and vegetables by the *train load*. Horticulture is beyond all question the leading industry of this county. Its development during the past three years has been very remarkable indeed. It is estimated that more orchards have been planted in the last two years than ever existed before. We have only begun to reach the markets of the world. South Texas is fortunate in being able to grow to perfection horticultural products that can be raised on a commercial basis in few, if any, other parts of the United States. Among these are the orange, lemon, lime, citron, fig, olive, English walnut, apricot, raisin, grape, prune, and all kinds of winter vegetables; such as cabbages grow best in winter.

A mine of wealth lies in the soil of Brazoria county and south Texas for the tiller of the soil. When I was there two years ago they were harvesting their third crop of Irish potatoes, about Nov. 10th, and they were exceedingly fine. Sweet potatoes grow and yield bountiful crops, some reaching the enormous yield of 500 bushels per acre. Drouths are almost unknown in this part, as it lies only about 2 to 20 miles from the coast, and reaching the west in some places; one at Velasco, the deep water part of Texas; from 4 to 10 feet under ground you get plenty of fresh water, clear and sparkling, and the lands are more or less sub-irrigated, which makes vegetation grow to immense proportions in a single season. I saw pear trees there that were two to three inches in diameter at the ground, and as tall as a common house, that grew in one season.

The growing of winter vegetables has become one of the leading industries, and these are shipped North. Many carloads of vegetables left Alvin last winter, and in early spring a number of carloads of strawberries were shipped.

FLORICULTURE IN TEXAS.

Some countries raise millions of dollars worth of flowers annually, and why not south Texas? While at Alvin I saw one florist planting out several acres of the cape jessamines. He was shipping them to New York at large profits, and said this was the finest place in the world for that business.

If one is not satisfied to raise one kind of crop, it will allow diversified farming. Cotton grows luxuriantly, as this used to be a large slave cotton-growing country before the War. Rice will grow also, as well as most other cereals and nutritious crops, etc.

Now, I might write a book as large as Webster's Unabridged Dictionary, and not tell the half of what Texas is. But I must necessarily be brief, as my time is limited. JENNIE ATCHLEY.

(Continued next week.)

Tons of Honey Taken.

MRS. ATCHLEY:—We have taken 18½ tones of honey from 176 colonies so far this season, and expect some more yet.

EMERSON BROS.

Santa Ana, Calif., June 1, 1893.

Killing Ants—Mating of Queens.

I notice in a late issue of the BEE JOURNAL that a correspondent gives as an ant exterminator "Rough on Rats." I tested the remedy the next day after reading it. I made it into a thin dough, and put a small piece of the poison on a little strip of brown paper, folded the paper around a stick, and placed a bate under each nucleus. In 10 or 12 hours I examined the hives, and found that it had successfully killed two different varieties of ants. But the meanest tribe

—those little black ones that combine all of the cussedness of the insect family—wouldn't eat it; they seem to like bees the best, so I prepared them a meal, by taking a lot of laying worker-brood and mixing them with the rat's enemy. I tried that, and was successful.

I wish to say for the benefit of Thos. S. Wallace (see page 758), that I introduced 50 fine virgin queens on March 15th, and the weather was so windy and rainy that but few of them were mated before they were 21 days old; however, all of them did mate, and were good queens.

I can winter virgin queens in small nuclei, and have them mated in the spring. Judging from my own experience in the business, I presume that J. A. knew what she was talking about. Mr. Wallace's 22 years in the bee-business does not prove his ideas to be correct. I have a neighbor who has kept bees 30 years, and he was just saying to me the other day, that his bees used to do better in the East where they could get pine rosin from which to build their comb.

Chrisman, Tex. C. B. Bankston.

Half a Crop—Bees on "July 4th."

Mrs. Atchley:—The honey season is about over with us. My crop will be about half of what was expected—nearly 30 tons from the sages—honey of No. 1 quality. This is not half a crop for a good season, and judging from the past it is a half crop in this county.

My benefactor, Mr. R. Wilkin, is to exhibit bees openly in a procession during the 4th of July. It will be of interest to the public in this section.

M. H. Mendleson.

Ventura, Calif., June 29, 1893.

A Mississippian's Bee-Experience.

Mrs. Jennie Atchley:—I am a new member of the bee-keeping fraternity. I had 17 common box-gums at the opening of this past spring, and proceeded to transfer them all to new frame hives of my own manufacture, after Root's style of hives. After transferring the first four or five, the colonies deserted their hives on account of robbing—a result of inexperience on my part. But I soon "caught on," and transferred the rest in a closed room; I have had five natural swarms this season. I am now running 17 colonies in frame hives, and two common box and log gums.

The honey-flow, so far, is not as good as I hoped for. Five of my colonies are weak, and the 12 others have supers on, and are loading up nicely, but slowly. I have sold surplus of three supers; the latter is filled with little boxes, 4x4, or 4¼x4¼ inches, made by my own hands. I get 10 cents per pound in our little village.

My little apiary is on my farm on a small non-boatable river, and 30 miles from any point on a railroad. It is my intention to enlarge my apiary to 100 colonies, and work for extracted and comb honey.

I derive a great deal of help, intellectually, from reading the American Bee Journal.

As a beginner, I have no rich and rare experiences to relate. I have uniformly succeeded so far with my bees, which are the Germans. My success is due to hard and close study of the books (Langstroth's and Root's), and the bee-periodicals that I receive, and exercising with my pets.

In my brood-frames for swarms, I put guides made of a slender stick, 3/16x3/16, and length of the under side of the top-bar, tacked on and coated with wax. The combs are remarkably and beautifully straight.

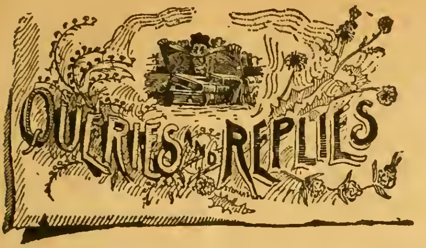
In my sections I use starters ¼ to ½ inch wide, and no separators. The honey is straight and uniform, very attractive, and a source of wonder to my neighbors and others who see the filled sections.

I am 54 years old. I taught school for over 25 years, till three years ago. I am infatuated with bee-keeping, but I do not rely on the product of my apiary for meat and bread. I sell honey as fast as it is sealed over.

Now, Mrs. Atchley, I merely write to introduce myself to the fraternity as a beginner and a learner; as well as to inform you that there is one more bee-keeper in Mississippi than you knew of before now. R. A. Whitfield.

Westville, Miss., July 3, 1893.

Alley's Queen-Rearing book, or "Thirty Years Among the Bees," gives the result of over a quarter-century's experience in rearing queen-bees, and describing the practical, every-day work. By Henry Alley. It contains an "Appendix," showing the improvements made in queen-rearing the last four years. Very latest work of the kind. Nearly 100 pages, with illustrations. Price, postpaid, 50 cents; or clubbed with Bee Journal one year, for $1.30.



Cause of the Disease Known as "Bee-Diarrhea."

Query 880.—What is the cause of bees having diarrhea ?—Illinois.

Microbes.—EMERSON T. ABBOTT.

I don't know.—J. M. HAMBAUGH.

Dampness and poor honey.—M. MAHIN.

Long confinement and watery honey. —DADANT & SON.

Long confinement or poor honey, or both.—JAMES A. GREEN.

Too long confinement in cold weather, and poor food.—E. FRANCE.

I think poor food, and too great extremes of temperature.—A. J. COOK.

Bad food ; damp, cold, confinement ; too much disturbance.—EUGENE SECOR.

Cold or poor honey, or dampness or other things—one or all.—J. H. LARRABEE.

Cold and its usual consequent dampness are the principal causes.—P. H. ELWOOD.

Cold and confinement. This is the cause ; other things may aggravate.—G. W. DEMAREE.

1. Bad food. 2. Excessive dampness. 3. Cold. 4. Long confinement to their hives.—C. H. DIBBERN.

Long confinement ; and, as Heddon says, too much pollen and too little honey.—WILL M. BARNUM.

Lack of sufficiently frequent flights to free the intestines of accumulations as nature requires.—G. M. DOOLITTLE.

Improper food and improper ventilation ; or, if put in winter confinement without flight, or disturbed.—MRS. J. N. HEATER.

Conditions which impair the health of the bee. I would say unwholesome food, and an unwholesome atmosphere. —R. F. HOLTERMANN.

Probably foul air. In driving bees out of an old-fashioned surplus honey-box years ago, by putting the nozzle of a smoker to an entrance hole and puffing vigorously, in a few moments the bees were soiling the honey, and had the appearance of bees suffering with diarrhea. —MRS. L. HARRISON.

On account of their intestines becoming overloaded with excreta, which they are unable to void seasonably, from lack of opportunity to fly.—R. L. TAYLOR.

Honey-dew honey, or poor, thin honey gathered from flowers, and long confinement to the hive, I think, are fruitful sources of bee-diarrhea.—S. I. FREEBORN.

Engorgement of the intestines. This may be caused by a combination of too much food taken ; bad honey ; food too much mixed with pollen ; cold.—J. P. H. BROWN.

Something wrong outside or inside. Too damp and cold a place may cause it with the best of food, and bad food may cause it with the best conditions otherwise.—C. C. MILLER.

I think it is because they are kept too cool, causing them to eat more than they would if kept at the right temperature ; and not having a chance for a cleansing flight.—JAS. A. STONE.

This question is one that is hard to answer, and any answer will only be a matter of opinion. One says it is owing to distension of bowel, owing to want of flight. Mr. Heddon says " pollen." For myself, I think ordinarily it is caused by excess of moisture. I don't propose, though, to be led into a discussion on the subject.—J. E. POND.

I have come to the conclusion that it is a general disorder of the digestive organs of the bees, causing great fever, and causes them to shed their hair. It is caused by over-eating both honey and pollen, and the lack of good weather to fly and void their feces, and free themselves from their sufferings. I have studied on this line considerable.—MRS. JENNIE ATCHLEY.

Please Don't send to us for bee-supplies, as we do not deal in them, and your order, if sent to us, must necessarily be delayed in filling. Just patronize those supply dealers who advertise in our columns, and you will thus please us most. We shall be glad to furnish you any bee-book and the BEE JOURNAL, but when it comes to supplies—well, we are not " in it."

"Bees and Honey"—see page 67.

CONTRIBUTIONS

Does Foul Brood Ever Originate from Dead Brood?

Written for the American Bee Journal

BY W. Z. HUTCHINSON.

I was much astonished at the views expressed by Mr. McEvoy, on page 594 of the BEE JOURNAL. I have watched with interest to see if any one would try to combat his views. No one seems to have done so. Why is it? Are those the accepted views, or don't others think they are worth answering? It seems to me that the views of the Foul Brood Inspector of Ontario are worth some attention.

His main point, and the one in which he differs from other authorities, is that he believes that foul brood originates from chilled or dead brood. The brood may have been drowned, or it may have starved, but if it is dead, and the bees are compelled to handle the dead brood, and the larvæ are fed, or partly fed, from this dead brood, foul brood will be the result. If I understand the matter, this is Mr. McEvoy's position.

He reports experience where the conclusion would naturally be that foul brood had originated in the consumption or handling of dead brood. Now, if it *is* a fact that foul brood is likely to originate from dead brood, the fact ought to be established beyond doubt, and be heralded near and far, that bee-keepers may be on their guard against allowing brood to become dead, or, if it is dead, to prevent the other bees from having access to it. But, in spite of Mr. McEvoy's testimony, I cannot help having my doubts in regard to the soundness of the theory.

There is probably scarcely an apiary in the country that, at some time, has not had dead brood in the hives; that is, in some of them. It is only accasionally an apiary that contains foul brood. If foul brood results from chilled or starved brood, it seems to me that it would be more prevalent. I have kept bees 15 years, and it has often happened that there has been dead brood in my apiary, but foul brood has never resulted. I remember one spring in particular, when a snow-storm came the 20th of May. There had been three weeks of fine weather, and the brood-nests had been enlarged. This cold lasted three or four days—snow and cherry blossoms hanging on the same branches. Many of the colonies perished outright. Of course they left brood. There was scarcely a colony in which there was not some dead brood. It decayed and smelled badly, but the bees cleaned it out, and no foul brood appeared.

It often happens in making up nuclei in queen-rearing, that so many bees go back that brood is neglected and dies in the nuclei. I have seen this many times, but no foul brood followed. When I first commenced using the honey-extractor I sometimes extracted honey from combs that contained unsealed brood. If there was only a little patch of brood in a comb, I have sometimes left it out of the hive with the combs that were to be used at the next extracting. This brood would die, and in a few days would be put back into the hives. No foul brood resulted. I once brought home a colony of bees in June. I carried it on the seat of the buggy by my side. The horse became frightened in going over a rough place, and jumped. The hive was jerked over backwards into the bottom of the buggy, and the combs broken loose. The dripping honey drowned most of the bees, and daubed the cappings over the sealed brood, so that it smothered the brood. I left this colony a few days, hoping that the bees would clean up things and make a success of it, but there were too few bees. The brood died, or most of it did. I then fitted the combs into other frames and gave them to other colonies. No foul brood resulted. I presume that there is scarcely a bee-keeper who cannot recall instances similar to those I have given.

Don't understand me as doubting the correctness of the data given by Mr. McEvoy; but to decide that foul brood results from dead brood because the latter is immediately followed by the former, is not scientific. I know that Mr. McEvoy scoffs at science, but he ought not. How foul brood is introduced into an apiary is often a puzzle. Honey from foul-broody apiaries goes into the markets. Consumers of this honey might throw away the wood of the section with a little honey adhering. Enterprising bees find this, and carry home the germs of foul brood. Or, the empty bottle or tin can containing extracted honey from a foul-broody apiary may be placed where bees have access to it. I know that it is not reasonable that the cases mentioned by Mr. McEvoy should have originated in the manner I have suggested, and I will admit that I cannot explain how the foul brood originated in these cases, but if it *did* come from the dead brood, then dead brood ought always to result in foul brood under similar conditions. Some *reliable* man should be able to produce foul brood from dead brood under circumstances in which there can be no doubt as to whether it came from some other source.

I suppose, of course, that communicable diseases, like foul brood, small-pox, cholera, and the like, must have had an origin, but I did not suppose that they *continued* to originate. That is, if all of the small-pox germs should be wiped off the earth, I supposed that would be the end of small-pox. I supposed it was the same with foul brood. If all the germs were destroyed, I supposed that was the end of it. I did not suppose that it could originate in an isolated apiary, unless the germs were brought there from some other diseased locality. I do not know that Mr. McEvoy differs from me in this view. Perhaps he thinks the germs may be carried in the air, or in the water of a freshet. Perhaps he does not pretend to say how they are carried. The point that we wish established is, What are the sources of contagion against which a bee-keeper must be on his guard? If it is against dead brood, then let it be known and proved. If that is a fallacy, let's know it.

W. Z. Hutchinson, Editor "Review."

Another point on which Mr. McEvoy is not orthodox, is that of using hives without scalding, in which have been combs containing foul brood, or, in other words, foul-broody colonies. Others have thought the same as he does on this point, but, finally, a dear experience has caused them to change their minds. It seems strange that in his long experience he has never known a case of foul brood resulting from using a disinfected hive.

Flint, Mich., June 12, 1893.

The Ventilation of Hives for Wintering Bees.

Written for the American Bee Journal

BY THOS. C. KELLY.

It is instructive to read and ponder on the various opinions of bee-keepers on different topics pertaining to the business.

I would like to call attention to the matter of ventilation in winter. Some advocate bottom, some top, and others think because the bees in their natural state close up all crevices with propolis, that ventilation is not necessary. I recollect a few years ago, a friend of mine got a colony of bees on shares. The box was about 18 inches high, and about 12x12 in other dimensions. This box was placed on blocks of wood about 1½ inches high, from the bench on which it was placed, and there it stood in summer and winter, in the same condition for about 10 or 12 years, the colony always being among the first to swarm in spring.

Some 7 or 8 years ago this same man had three top swarms come off at the same time, and cluster together, and nothing but a log-house or log-barn to hive them in, but he thought of an old salt-barrel, which he got, and placing sticks across it he hived the bees in it. They filled the barrel about two-thirds full the first season; and the next season filled it up. The following spring a neighbor bought it, paying $12 for it, and I helped him remove it. There were several cracks in the barrel that a man could run his finger in, and we had to do it up in cloths to keep the bees in.

In both of the above cases the bees wintered nicely.

I noticed the past winter, the older and more open my hives were the fewer bees died, and as a rule are better than most of those in close hives. I would like to hear from others, more particularly as to their experience in ventilation. We don't want *theories*—give us *facts*, in time for next winter.

How would cases like the above do

wintered in Simplicity frames, or any of the shallow frames?

I had the fortune to find a bee-tree a few years ago. I let it stand until spring, and cut it out and save the bees. The limb formed an elbow at right angles. The bees went in at the top or upper side of the limb at the elbow, and I supposed I would find the bees in the horizontal part of the limb, but I was disappointed. The hole was large enough for a man to put his fist in, and the bees had their stores directly below the hole, yet were in good condition. Now, if bees will live through winter in such places, why so much fussing and trouble to get good, warm quarters for them? I believe that bees should be well ventilated below, and closed on top almost air-tight; but I will listen to others.

My neighbors lost from 33 to 50 per cent. of their bees. One man had 4 colonies, and lost 3. The past was an extremely hard winter on bees in this section.

Slippery Rock, Pa.

Can Virgin Queens Get Through Smaller Holes than Laying Ones?

Written for the American Bee Journal

BY DR. C. C. MILLER.

On page 760, John McKeon acknowledges his mistake in such a manly way that my sympathies are with him. But on the same page he incidentally admits something that may be open to question when he speaks of a virgin queen as being so much smaller than a laying queen that she may get through the perforations of an excluder. Now I don't pretend to know about it, but I have a right to doubt, and if any one has positive proof that a virgin queen can get through a smaller hole while a virgin than she can after she commences to lay, I hereby challenge him to trot out his proof.

I have had virgin queens that could get through excluder zinc, but I've had laying queens go through the same perforations, not because the queens were remarkably small, but because the perforations were too large. That a laying queen refrains from going through a place through which a virgin readily passes, is not conclusive proof. The question is not whether she *will*, but whether she *can* go through as small a perforation as when a virgin. I've had plenty of cases in which queens never went up through a honey-board into a super, but that doesn't prove that a queen can't go through a ⅜-inch crack. It only proves that they didn't try to go up.

I know very well that a queen in the full vigor of laying looks very much larger than a virgin, but it is the abdomen, I think, that is larger, and not the thorax. To-day I saw an old queen that had just swarmed, and she looked smaller, and I think she was smaller than an average virgin. But I do not remember that any one ever claimed that such a queen could get through any smaller hole than she could when laying her best. I have seen it asserted that the size of the abdomen was what prevented a queen from going through an excluder, but I think the one who made such an assertion never carefully watched a queen going through. Did you ever watch one? Did you ever see the thorax go through and then the abdomen stick? No, she doesn't go through that way. She keeps trying the perforations, and the instant she gets the thorax through, the abdomen goes through like a streak. Squeeze the thorax between the thumb and finger, and you will find it hard and unresisting, while the abdomen readily yields to the pressure.

As I said, I don't pretend to know, but until I have some proof to the contrary, I am inclined to the opinion that the thorax of a queen is no larger after she commences to lay than before; and that if she makes the same effort, she can get through a hole of the same size.

Marengo, Ill.

"Langstroth" on Inversion, Contraction, Etc.

Written for the American Bee Journal

BY C. W. DAYTON.

Partially replying to Mr. Thompson's question in regard to contraction, inversion, etc., on page 533, I would say, in getting information on these subjects, do not look to non-contractionists or non-inversionists, because nine times out of ten the reason a man is against a system or plan of management is because he does not practice it enough to realize its advantages.

A locomotive engine usually goes straight ahead, but it is a very good thing sometimes that they are also able to run backward. When a contractionist or an inversionist practices according to his doctrine, and continues straight ahead, non-believers say nothing until he begins to back on to a side-track, or off a rickety trestle, and then they exclaim that he is losing confidence in his own methods.

The illustrations of hives and the reading matter on pages 414 and 415 of "Langstroth," are in astonishing contrast. Bee-culture in France in 1861 was probably considerably below what it is in California to-day, of which Mr. Hewes says that all the knowedge of the specialist may generally be summed up in the hiving of swarms, and taking away what honey the colonies chance to gather, and it is my belief that one-half of the colonies in Los Angeles county last fall were so extensively robbed that they died of starvation, and starvation is the only method I know of for inversion to "diminish the number of colonies."

By further adventure along the line, it will be found that the inventors of the accompanying hives were systematic and sure in feeding their colonies sugar, which is a safer winter food than honey. It certainly is not "costly" to cause the bees to store *all* their honey in the sections when section honey sells for 14 to 16 cents a pound, and granulated sugar can be purchased at 5 or 6 cents. I don't think it is as *risky* to weigh out and feed a colony 20 to 25 pounds of syrup as it is to make an estimate of the winter food in combs that may be partially filled with pollen or honey-dew.

If some one, apparently out of breath, should tell you that your uncle had fallen off one of those 18-story "sky-scrapers" in Denver, on to the stone sidewalk, *you* might lose your breath, as it were, but when he finished his story, and you learned that he landed on his feet, and was not even shaken up, you would breathe easier than ever. So in "Langstroth on the Honey-Bee," it gives modern invertible hives and the results of ancient careless or neglectful management. There is a chapter on feeding sugar in another part of the book, but in connection it does not say that feeding is extensively practiced by those who *take all the honey away* by inversion.

"Langstroth" is a history of bee-culture in ages gone by. "Success in Bee-Culture" deals with the future; so do most of the books.

In bringing "Langstroth" up to the present time, many of the latest implements and practices are discussed, and often ancient practices and plans appear to be arrayed against the modern, as we find the Shuck and Heddon hives illustrated on pages 414 and 415, and the inversion of box-hives in 1861, and a plan of feeding for winter that required the apiarist to prophesy to a day just when the honey-flow would cease, associated.

Inversionists and contractionists invariably use large, and sometimes very large, hives for brood-rearing.

Sometime in 1890, the editor of *Gleanings* intimated that by contraction there were never as strong colonies as where contraction was not practiced, and I wrote in defense of contraction as no hindrance in securing strong colonies while brood-rearing was done with a larger hive than was used when contraction was not practiced. Mr. Heddon used 10-frame hives; Mr. Doolittle 12-frame hives; and I was at the time booming somewhat a method of contraction of my own, and using 12 frames to the hive.

To answer my arguments, he referred to Mr. Dadant, who starts out with, "Of course a queen can rear a very small amount of brood in a small hive." Now any one might as well argue at the blank side of a barn when he considers my hive of 12 frames 9x17, smaller than his own containing 9 frames 11x17; in fact, my hive was held up before the unsuspecting reader as containing only 4 or 6 frames.

In Mr. Heddon's book he devotes more space to feeding bees for winter than to inversion and contraction.

Non-contractionists, in combatting the subject, have invariably grasped by the tail and shunned the horns, endeavored to keep our locomotive plunging forward regardless of dangers, while contractionists arranged throttles, side-tracks and block stations all the way.

On page 270 of "Langstroth," Mr. Alley's system is intermixed with a most wretched case of queen-rearing, and says, "His queens are all reared in very small nuclei, which he calls miniature hives." The fact is, the cells are put in these small colonies only when they are about ready to hatch, and the queen is to become fertilized and tested. Mr. Alley's cells are all built in rousing colonies, which have been deprived of *all brood*, thereby causing a populous colony to center their whole strength and care upon a limited number of cells. Then, too, his nuclei colonies are well fed during the time, and a well fed nucleus is courageous and prosperous, while an unfed strong colony may be on the decline and low-spirited.

Again, on page 5, in Mr. Langstroth's

biography, it says, "From his *large* apiary (in 1858) he sold $2,000 worth of queens." At that time queens sold from $10 to $30 a piece, and also many queens were reared in small nucleus colonies. With queens at those prices, it should not require more than a dozen hives to rear $2,000 worth, and we have records that apiaries of 200 to 300 colonies existed at that time. It also says that $2,000 "looks small at the present stage of bee-keeping." I doubt if there is more than one queen-breeder in the world who sold that amount in 1892.

As to nectar running out of the cells because they are reversed, I would say that about a week ago I laid a comb about a foot square flat down on the top of the brood-frames for the bees to remove some honey it contained. In looking at it yesterday, more honey had been stored in it on its under as well as its upper side, and there was a little patch of eggs on both sides. This was one of the objections brought against the reversible frame in 1884, but some one declared that bees would store honey on the under side of a horizontal comb, and that objection was "laid to rest." I have also transferred some 400 or 500 colonies, and always aimed to fasten the comb into the new frames the opposite from its original position, and I have never been able to detect a bad result from the inversion.

Contraction in the alfalfa region of Colorado, and contraction in the basswood region of Michigan, Wisconsin or Iowa, are two different things. Alfalfa bloom lasts six weeks. Basswood seldom two weeks—often only eight days. I spent last season at Greeley, Colo. I put on 50 or 75 surplus cases, and examination two weeks afterward found half of the colonies just beginning to notice them ; yet there was a slow yield of honey all the time. In this time the basswood bloom will come and be entirely gone without a drop of surplus. But alfalfa lingers. If the apiarist makes a mistake he may have time to correct it. Contraction is not to be applied until the chance for rearing useful bees is over. I never expect to see basswood bloom twice in one season, but I always practiced contraction mindful that we might have an unusual basswood honey-flow lasting 20 days.

Before adopting contraction I thought inversion necessary; but if the system of contraction is good, the bees will occupy the sections so soon that they will store all the honey in the sections without any inversion. Keep prolific queens also that will crowd toward the top-bars. A poor queen admits honey over the brood in the brood-frame. Inversion causes honey to be stored on the other side of the brood, and soon the whole brood-nest is full of honey.

In my system of contraction I can get the foundation drawn in sections when there is so little honey gathered that the wax used will be borrowed from the brood-combs, but I do not furnish sections until there will be a little honey put in them as soon as the foundation is drawn. Then when the sections are put into the supers, the bees store honey in them from choice, and not because they are compelled to do it. They naturally carry the honey out of the brood-chamber to a position above the brood.

This gives the queen more room. If there are 15 brood-combs in the brood-chamber the honey goes above the brood into the sections. It removes the causes of swarming. Instead of the honey along the top-bars crowding the queen and brood toward the bottom-bars, the brood is extended up against the top-bars, and the lower part of the brood-combs are left vacant if there is more space than the brood will occupy.

A little honey from fruit-bloom has been coming in for the last month. Our honey harvest is to arrive sometime in the future. About two weeks ago I made foundation and put it into sections in the forenoon. At 2 o'clock I went to a good colony occupying 10 combs with brood in every one, lifted three frames of brood from the center into an upper story, and put in their place in the brood-nest two wide frames of sections. Examination two hours after found the foundation in the upper rows of sections with cells 1/5 of an inch deep, and in 20 hours there was some honey in them. In this way I fill all supers put on.

A section of comb left over from last season is called a "bait," but a section of new comb with a little new honey in it is a "bait" among the "baits." Put this new "bait" in the most distant corner, and the last year's "bait" in the center, with sections of untouched foundation between, and the new "bait" will be filled and capped first. I have tried it in numerous ways.

One of the principal objections to this plan is that it is slow and puttering. That depends upon how systematic you are, and how well you can understand the conditions of colonies. If one colony is operated upon it may take 15 minutes, but 50 colonies may be so manipulated in 2 hours and 15 minutes.

There is not a question of doubt but

when the sections are alternated with the brood-combs that the bees take immediate possession of them, and Mr. Doolittle has demonstrated where to have kept only one colony waiting it would have equaled his time in the hay-field.

I should have said that when the sections are taken out of the brood-nest, the original combs are returned; and I may add that the average time for the sections to contain honey will be 48 hours, while 72 hours is an unusual length of time.

There is a certain period in the progress of every colony in conjunction with the honey harvest when this plan is most successful, and can be told by the experienced. In California this year it was about three weeks ago, while our honey harvest is still in the future.

One or two weeks later or earlier, it will take twice as long to have the same work done; it will be a poorer job, the queen may lay in them, or there may be pollen stored in them.

Colonies vary so much in strength and work that in a hundred colonies five may be ready to-day, 12 to-morrow, 25 day after, and then the number decreases for a week or two.

Many of our foremost apiarists who produce honey by the ton, in applying this method, instead of sorting out the stronger colonies and manipulating them first, will begin on one side of the apiary and take the colonies weak and strong, by the row, as we hoe a row of corn, beginning too late for the strong, and too early for the weak, making a failure of the whole job.

When a colony stores one-half of the brood-chamber with honey, there never can be the force of a colony in the sections, since division of the honey means division of the workers.

To cause bees to store honey above a line of capped honey along the top-bar is contrary to natural instincts, and may be compared to compelling a mason to finish the top of a wall before laying the foundation.

Pasadena, Calif., May 10, 1893.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

Some California Notes on Bees, Cherries, Etc.

Written for the American Bee Journal

BY W. A. PRYAL.

I have been at home from Chicago a week now, and have been at work among the bees most of that time. I think by Tuesday next my year's work with the bees will cease, as I will have to turn my attention to my regular business. The bees will not be neglected, as my brothers are fairly well able to run the apiary. They attended to all the work while I was away, and as they obtained a fair amount of comb and extracted honey in that time, I feel confident that they will have no trouble in running things apicultural hereafter. These boys have been brought up among the bees, for they have seen me at work with the honey-gatherers since they were babies. We have had bees on this place for the past 26 years; neither of my brothers are yet 20 years of age.

Though I have more colonies run for honey this year, I think I am not going to get as much honey as I obtained last year with less hives. At this date we have more honey, and will still obtain more. The season seems to be shorter by a good deal; the grass is all dry on the hills and valleys. Yet there may be a big flow from some of the wild flowers in the hills during the next few weeks. Our fine light honey is yet to come in, provided there is to be any.

While I was away I was afraid that the boys would have trouble in saving the swarms as they issued; they did not, and strange to say the bees did not get the swarming fever. Out of over 60 colonies we have not had more than 10 swarms. They were given plenty of room, and kept to work. This has pleased me, for I have been always "forninst" too many swarms. I prefer to do my own swarming, so to speak.

While at the World's Fair I saw in the California building an exhibit of a bee-hive and some "bean" honey, by Dr. Archer, of Ventura county, this State. The samples of honey were as fine as any honey I ever saw. I would have thought from its appearance that it was sage honey—that honey for which Southern California is famous. The exhibit is in that corner of the building where the Southern California counties are making their special display.

We have a big crop of cherries this year. Our county is one of the leading cherry counties of the State. If the price of this fruit was what it has been in the past, we would realize a fine sum from our cherry crop alone. As it is, the price has fallen below what it had ever been in former years. Fine cherries, such as you are not accustomed to see in the East, have been selling for some days this week for only 1½ cents per pound. The lowest they have been before was about 3 cents. Beautiful black cherries are now 3 cents per pound—they should not be less than 6 or 7 cents. As it does not pay to sell them at the low price that has been ruling this week, we have turned our pickers off until the market becomes firmer.

The cause for the fall in the market is not that there is an extra large crop this year, but for the reason that the banks will not loan the fruit canneries any money, as they have in past years. The banks seem to be hedging, and don't want any money out when they cannot tell the hour that there will be a "run" upon them.

I don't know how the financial strait will affect the bee-business; a good many California bee-keepers have to borrow from the banks on their crops. I suppose the bee-men have made their negotiations before this time.

Speaking of the prices of honey reminds me that my brothers have been doing very well; they have sold off several hundred pounds of this year's crop of extracted at 8 cents per pound. The lowest they have obtained this year is 7½ cents. This is doing very well; they say they can sell all they have without having to send it to San Francisco, as they did last year. They are building up the home market with good results. They have obtained 12½ cents per pound for their comb honey. As our locality is not well adapted to the production of this kind of honey on account of the cool nights, we don't get much of it.

North Temescal, Calif., June 24, 1893.

An Out-Apiary in the Mountains of Tennessee.

Written for the American Bee Journal

BY W. M. SCRUGGS.

As there is said to be more than 1,000 colonies of bees in our town, I thought it best to establish an out-apiary. I did so. I moved 15 colonies to the selected place, which is a peculiar one, so I will describe it.

The top of the Cumberland Mountain is a nice, level country, and elevated about 1,200 feet above the common level of the valleys. In the top of this mountain are caves or sinks 800 to 1,200 feet deep, some of them being one to five miles long, and one to two miles wide, and some of these caves prong out like a crow-foot. The one I have selected is four miles long, and has three prongs to it, and is about 1,000 feet deep, and one mile wide. This sink has a 50-acre farm in the bottom of it, and about 20 acres of the farm is in large fruit trees. Most of the land in this cave is very rough, covered with large stones. The land is very rich, and the timber very large and fine. The poplar tree grows here quite numerously, and no doubt will remain, as it would cost more to get it out of such a place than it would be worth.

The celebrated linden tree is growing thickly all over this sink, from the bottom of it to the top of the hills. The chestnut, sour-wood, grape and sumac are here in large quantities. There is also a kind of rock moss that blooms as early as fruit, and lasts until the poplar bloom comes in.

It is several degrees warmer down in this sink than out on top of the mountain. The linden leaves were about grown at the base, while they were in the bud up near the top of the hill.

I have selected a hillside 5-acre field, facing east, and 100 feet above the base of the sink. I carried the bees to the place the last of March. They were a poor lot, for bees wintered badly here last winter; but by May 1st they had built up, and were ready for a second story; and I have kept adding on surplus cases until at present they are two to three stories high, and full of sealed honey. I expect to extract the honey this week, so as to give the bees a chance to store all the honey from the linden they can carry in, which is now beginning to bloom.

There are quite a lot of just such places in this mountain, as the one described, and if this is not a good place for an apiary, please tell me where to find one.

Tracy City, Tenn., June 19, 1893.

◆

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Aug 15.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton. Sec., Washington, D. C.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Dr. C. C. Miller....Marengo, Ills.
Vice-Pres.—J. E. Crane.......Middlebury, Vt.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.

LETTER BOX
REPORTS PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Best in Eight Years.

Bees are doing the best with us now they have done in eight years.
H. D. Burrell.
South Haven, Mich., July 10, 1893.

Alsike Clover—Camphor and Ants.

I have not seen any report from Cass county this season. Seventy-five per cent. of the bees died in this county the past winter. We are having the best honey-flow we have had for years; it is from Alsike clover. White clover is immense, but bees do not look at it. I put my bees into the cellar, and they came out all right.

I think that ants trouble some bee-keepers quite a good deal. If they will use one cent's worth of camphor gum to the colony, where there are ants, that will be the end of them. Try it, and be satisfied.
A. S. Straw.
Edwardsburg, Mich., July 3, 1893.

An Experience in Carrying Bees.

In November, 1892, I put my bees into the cellar, and I had quite a time of it. I had raised all of the hives one inch from the bottom-board, and in carrying in a heavy colony in some way the hive slipped over sidewise a half inch or so, and it gave the bees a chance to come out. I had the grip the year before, and it reduced my size so that my vest was about two inches too large for me, and the consequence was, when the bees stampeded out of the opening in the open space at the bottom, they run right up under my vest, and moved up in a solid column, and by the time I got into the house they were pouring up out at my shirt collar. As near as I could tell by their buzzing and kicking, they were 40,000 strong. I laid the hive down and skipped outside, pulled off my hat, coat and vest. My wife came out with the broom and brushed as fast as she could for laughing at the predicament I was in. My clothes were full of bees down into my shoes, but as luck would have it, I never got a sting; but the dead and missing bees were great.
Osakis, Minn. Mark D. Judkins.

Lots of White Clover Bloomed.

Last fall I had 76 colonies of bees, and all died but 4, and one was queenless, at that. It made me feel a little blue, but I bought 10 new colonies for seed, and will be all right again. The fields look almost as white as they did last winter—so much white clover. D. G. Webster.
Blaine, Ills., July 10, 1893.

Can Bees Puncture Fruit?

If Geo. A. Stockwell, of Providence, R. I. (see page 759), will examine his hardwood tooth-picks and ripe grapes with a magnifying glass, he will find that they are not of the same texture. Bees sting through most kinds of cloth, yet Irish linen baffles them when it is starched and ironed smooth, the sting slides along over it, and does not penetrate.

The bees did not bite those tooth-picks—they picked at them, raising a little fuzz which they could pull at, and tear off, and by constant picking wore it away. The smooth skin of a grape has no fuzz or fine fiber that a bee can grip. Feed bees in a glass, China ware, or wooden receptacle, and note the difference; while the former will be a writhing mass of drowning bees, the latter will have every drop of syrup removed, the feeder clean and dry, and not a bee drowned; they could not grip glass or china, but could grip wood.

My brother bee-keeper, if you will examine into this matter carefully and honestly, I think that you will find that the bees of Rhode Island are not at all different from those of Indiana, and that you will unite with the Hoosiers in saying that "Bees do not puncture grapes or injure them." Mrs. L. Harrison.
Peoria, Ills.

Bees Transferring Eggs to Queen-Cells

On page 492 is an item from a Mr. Nelson, and Mrs. Atchley's reply. Mr. Nelson has no evidence of a queen laying in a queen-cell, but I have evidence of bees at different times transferring eggs to queen-cells. We all know that a queen is death on any queen-cell that has a larva in it, unless guarded. I have at different times had nuclei to start queen-cells, and found eggs in them when there was no other way for them to procure them, only to go to another colony and steal them.

It will be noticed that when bees start queen-cells before an egg is put into the cell, the bottom of the cell will be found with a wet polish resembling honey; then in a short time you will find eggs in the cell, and you know that a queen won't lay in a cell when it is of a wet-polished shape. I believe in nearly all cases that the bees transfer the eggs from worker-cells to queen-cells.

If the reader wants to satisfy his mind on the subject, when he finds a colony starting queen-cells, and as soon as he finds them giving the bottoms the wet polish resembling honey, mark the queen-cells, remove the queen so that if they use the cells to rear queens the bees will nave to transfer the eggs instead of a queen laying in them, and he will see that the bees will rear queens in the cells, or at least part of them. Such is my experience.

Coon Rapids, Iowa. THOS. JOHNSON.

Bees are Booming.

Bees are just booming, I have taken 44 pounds from one colony, and the third super is nearly ready to come off.

T. C. BREECE.

West Berlin, O., July 5, 1893.

Strong Colonies Best.

The 6 colonies of bees that I have the care of at present, were not properly taken care of in the fall, and came through weak this spring. In spite of my utmost efforts to encourage brood-rearing, they were so late that that queen of all nectar-bearing plants—the red raspberry—blossomed before they were strong enough to put the surplus on.

Well, the fact of the matter is, they stored honey much faster than they reared brood. The season, which was very wet at first (promoting a strong growth of plants), turned dry and extremely hot some three weeks ago, with more hot nights than we usually have during the whole summer season. Some of the hives at present (June 24th) are one-third full of honey, and not one-half the bees there should be at this season of the year. It would have been useless to put on surplus room, as some of the brood-frames were empty, and the bees did not hang out when the temperature was 100 degrees in the shade.

I have put some of the frames of honey in the center of the brood-nest, in hopes of getting them used to build comb in the surplus. This more fully strengthens my belief that one strong colony is worth two weak ones *at any season of the year*, if we count the worth of each independent of others, and build the weak ones on their own merits. Those just-at-the-time chaps will get left this season, if things shape the same as here. I should like to hear from Mr. Doolittle, on this subject, through the AMERICAN BEE JOURNAL. J. H. ANDRE.

Lockwood, N. Y.

Just Hauling in Honey.

My bees are just hauling in honey. They are making up for last year, I guess.

WALTER R. WOOD.

Bellevue, Del., July 6, 1893.

Gatering at a Terrible Rate.

Bees are gathering honey at a terrible rate from white clover. They wintered finely in this section, only a few colonies having died. Out of 12 colonies only one died, and my 11 are doing excellent work on white clover. My first swarm was on June 16th. A bee-keeping friend here has received 12 new swarms from 4 colonies, and they are gathering honey fast from white clover. CHAS. C. CHAMBERLIN.

Romeo, Mich., July 4, 1893.

Packing in the Honey.

Bees in Western Connecticut are doing finely, at least mine are. I had 16 colonies, spring count, and increased to 30 colonies. I have taken off 170 pounds of honey, and have 850 sections on to be filled; they are packing it in in good shape, and I think they will fill them. H. H. KNAPP.

Danbury, Conn., July 10, 1893.

Wintering—Black Pepper and Ants.

While I am watching my bees, I will tell about my wintering of them. They were left on the summer stands in two long rows containing 63 colonies, with a rough shed with back and cover, the front open to the south, with cloth turned back half way with a cushion of leaves on top, and with sticks across the frames to give them room to pass over the frames. I did not unpack them until May 1st. My loss was 7 colonies in all. At this time they are doing well on white clover, storing some in sections. I have had 6 swarms at this date—June 24th.

I notice a good deal said about ants troubling bees. That has been my experience ever since I have kept bees. I have tried many remedies. They are of the little black biters. They breed on top of the cloth or quilt in great numbers. I was thinking that ground black pepper might have some effect on them, so I tried it. I gave them a good dose on their eggs and all, and then put on the cover and left them to their fate. The next day I looked after them, and they were not there, and have not been since, and that has been some 10 or 15 years ago. I would like to have some one else try ground black pepper. Put it in a pepper-box and pepper them well, and I think you will be surprised how they get out. I was. S. BURTON.

Eureka, Ills.

Having a Splendid Season.

We are having *splendid* season now. I *never saw* bees work as they do this season. J. S. BARB.

Oakfield, O., July 12, 1893.

Just Boomed on White Clover.

I have 54 colonies of bees in frame hives. They just boomed on white clover, and also started in well on basswood, but the continued hot, dry weather has checked the flow from that source somewhat, and in a very few more days the bloom will be gone. A. H. SNOWBERGER.

Huntington, Ind., July 7, 1893.

Convention Notices.

ILLINOIS.—The summer meeting of the Northern Illinois Bee-Keepers' Association will be held at the residence of O. J. Cummings, 2 miles northeast of Rockford, Ills., on Aug. 15th, 1893. A good meeting is anticipated. Everybody is invited. Come and see Mr. Cumming's methods of handling bees.
New Milford, Ills. B. KENNEDY, Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land, FRANK BENTON, Sec.
Washington, D. C.

Have You Read page 67 yet ?

The World's Fair Women "Souvenir" is the daintiest and prettiest book issued in connection with the World's Fair. It is by Josephine D. Hill—a noted society lady of the West—and contains superb full-page portraits and sketches of 31 of the World's Fair women and wives of prominent officials connected with the great Fair. It is printed on enameled paper, with half-tone engravings, bound in leatherette. We will send it postpaid for 60 cents, or give it for *two* new subscribers to the BEE JOURNAL at $1.00 each.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, July 15, 1893 :

CHICAGO, ILL.—We quote fancy new honey at 18c.; No. 2, at 16c.; amber, 15c. Beeswax, 22@25c. We have had some shipments of fancy new stock which sold at once. J. A. L.

CHICAGO, ILL.—There is not much movement in comb honey. Prices range at from 12@16 and 17c., all good grades bringing 15@17c. A few cases of the new crop have arrived and brought the top prices. Beeswax is very steady at about 25c. Extracted honey is moving very slowly at from 6@8c.
R. A. B. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.
Beeswax—20@23c. C.-M. C. C.

CINCINNATI, O.—New extracted has commenced to arrive lively, and is in fair demand at 5@8c. There is a slow demand for comb-honey, and no choice on our market; prices nominal.
Beeswax—Demand good, at 22@25c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—No comb honey on the market. New crop extracted is now arriving freely from California and the South, and the market is well stocked. Trade is quiet, demand light, and prices have a downward tendency. We quote—Southern, common to fair, 60@65c. per gal.; choice, 70@75c. per gallon. California, 6@6½c. per lb.
Beeswax—25½@27c. H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality, 1-lbs. Beeswax is neglected at 22@23c. S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 6@7c. No beeswax on the market. H. & B.

BOSTON, MASS.—Honey is selling slow and prics are lower. Best 1-lb. comb, 16@17c.—Extracted, 8@10c.
Beeswax—None on hand. B. & R.

ALBANY, N. Y.—Our honey market is dull at present. There are some receipts of new extracted, but no reliable price established yet. Beeswax is more plenty, at 27@28c. for good color. H. R. W.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white conb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

Have You Read that wonderful book Premium offer on page 67 ?

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

Your Neighbor Bee-Keeper—have you asked *him* or *her* to subscribe for the BEE JOURNAL? Only $1.00 will pay for it for a whole year. And, besides, *you* can have Newman's book on "Bees and Honey" as a premium, for sending us two new subscribers. Don't neglect your neighbor! See page 67.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE — High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

WANTED—A good girl to do general house work in a family of four persons, two being children. A Methodist (or protestant) preferred. Reference—George W. York & Co.
Address, MORTON J. DATE,
3Atf 189 Washington St., Chicago, Ill.

WANTED TO SELL OR EXCHANGE for good Florida, Arizona or Southern California property, situated in a good honey locality—an established Wall Paper, Paint, Picture-Framing and Artists' Material business in a thriving city of 10,000. Also, a Printing Office, with Weekly Newspaper and Job Work Trade, established. Correspondence solicited. Satisfactory reasons for wishing to sell. Address,
CORELL & HILL, Titusville, Pa.

Advertisements.

READERS Of this Journal who write to any of our advertisers, either in ordering, or asking about the Goods offered, will please state that they saw the Advertisement in this paper.

Tested Queens 80c. I re-queen my whole yard every year, and now again offer about 50 Fine Italian Tested Queens at 80 cts. each, or two for $1.50. Mismated Queens at 30 cts. each. My Queens are equal to the best. **T. H. KLOER,**
426 Willow St., TERRE HAUTE, IND.

Do You Know Those who have tested my Strain of **Five-Banded Golden Italians,** say '**They are the best.**' Select Queens, warranted purely mated, $1.00 6 for $4.50. Special prices on large lots. Circular free. **C. D. Duvall, Spencerville, Md.**
3Atf *Mention the American Bee Journal.*

JUST SPLENDID.

"MR. H. ALLEY—The Queen I got from you last fall is just splendid. She is the best Queen in an apiary of 150 colonies. I would not take $10 for her.—JOHN A. PEASE, Monrovia, Calif."

Price of such Queens is $1.00 each.

HENRY ALLEY, Wenham, Mass.

ESTEY & CAMP

CHICAGO, ST. LOUIS,
State & Jackson Sts. 916-918 Olive St.

A Strictly Reliable Source for

PIANOS

—: AND :—

ORGANS

Of All Grades, Sizes and Colors.

Comprising the Celebrated

DECKER BROS.; ESTEY; BRAMBACH AND CAMP & CO. PIANOS AND ESTEY ORGANS.

Renting, Tuning, Repairing, Etc.

Established in 1861

THE AMERICAN BEE JOURNAL

Oldest Bee-Paper in America

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., JULY 27, 1893. NO. 4.

Editorial Buzzings

The Canadian Bee Journal office, we are sorry to hear, was wholly destroyed by fire a short time since. We do not know whether its publication will be continued or not, but we presume its proprietors have made an announcement to its subscribers long before this time. It is to be hoped that the office was well insured, as it does not pay now-a-days to go without insurance—at least no good business man would do so.

* * *

Father Langstroth, we are pained to learn, is again suffering from a continued attack of his old "head trouble," and "the dark clouds" of despondency once more hover over him. A few days ago we sent him a check for the first $5.00 that had been collected in the "Langstroth Fund," that we are trying to raise for Father L., and in response thereto we received the following letter full of tenderness and anxiety from his widowed daughter, with whom he lives:

DAYTON, O., July 17, 1893.

MR. GEORGE W. YORK.—

Dear Sir:—I hope you will pardon me for a few days delay in answering your letter, and acknowledging the receipt of the enclosed check.

My father's old "head trouble" has been upon him ever since last November, and "the dark clouds" have seemed to him blacker and heavier, and harder to bear, than ever before. Added to this, his advancing age has greatly increased his physical disabilities, and he has been very feeble and infirm.

He desires me to thank you for your generous efforts in his behalf, and through you to thank those who have kindly remembered him.

He is totally unable to do anything which would help him pecuniarily, and whatever is freely offered by those who feel themselves benefited by his invention, is gratefully received.

With kind regards from my father, and my own thanks for your thoughtfulness towards him, I am,

Yours respectfully,
ANNA L. COWAN.

It seems to us that after reading the foregoing letter, all of our readers will contribute at least a little to the "Langstroth Fund," so that Father L.'s last few years may be made as comfortable and happy as possible. After he is no more with us, we feel sure it will be a blessed memory to know that we tried to do something so that the Father of American Apiculture should not want for things needful in his last days.

Let there be a general contribution now that the honey harvest has been abundant, and bee-keepers will once more be cheerful and happy. Share your prosperity with those who are less fortunate, and thus show gratitude for the great blessing of another honey crop that shall sweeten your life and also the life of your friend in affliction.

* * *

World's Fair Notes.—On Saturday, July 15th, we spent a little time at the apiarian exhibit in the southeast corner of the Agricultural Building.

We noticed that Illinois is still unrepresented, but we presume that the exhibit will soon be put in place.

Dr. Mason was there to look after the

Ohio exhibit, and to attend to some other work in connection with an exhibit of bee-keepers' supplies.

Hon. Eugene Secor, the genial Judge of all the apiarian exhibits at the Fair, was there attending to his duties. His appointment gives entire satisfaction to all.

Mr. O. L. Hershiser was in charge of the New York State exhibit. He is a jovial, wide-awake bee-man. He couldn't be anything else, and get up such an exhibit as that of New York, which includes six colonies of bees. On July 12th he took off several pounds of perfectly capped white clover honey, gathered by bees from Mr. G. M. Doolittle's apiary. This is perhaps the first time that an apiarist has attempted to have a practical apiary at a Fair. From present indications he expects to secure some two or three hundred pounds of honey from his little apiary in the big Agricultural Building. Mr. Hershiser had one of H. P. Langdon's non-swarming devices in practical operation.

Mr. A. G. Hill, editor of the *Bee-Keepers' Guide*, was also there, to put in place the Indiana honey exhibit. He informed us that he had discontinued the publication of the *Guide*, and would devote his time to the supply business. The *Review* is to fill out the unexpired subscriptions of Mr. Hill's late bee-paper.

Mr. Pringle has put up a very attractive exhibit for Ontario, Canada, and the day we were there, Judge Secor had begun to go over the display with Bro. Pringle, preparatory to making the awards.

A nice young man from Bro. Root's establishment was "taking in the Fair," and we had the pleasure of meeting him. We do not now recall his name, but we were glad to see one from the "Root plantation."

* * *

Burned to the Ground.—We are very sorry to learn of the heavy loss by fire that has come to the excellent firm of Levering Bros., of Wiota, Iowa. On July 21st we received the following letter from them, telling about their misfortune:

> WIOTA, Iowa, July 20, 1893.
>
> GEORGE W. YORK & CO.—
>
> *Dear Sirs:*—On the night of the 17th, at about midnight, our factory caught fire and burned to the ground, with a large warehouse filled with supplies of all kinds. Our loss is complete, as all our machinery is ruined, and our loss is between $25,000 and $30,000; insurance $3.000.
>
> We have only one warehouse left, that contains sections and dovetailed hives, with some smokers and extractors. It is a hard blow on us, as our resources are all cut off, and we are unable to meet all our obligations at present. Yours respectfully,
>
> LEVERING BROS.

We hope our friends may soon be enabled to recover from their terrible loss, and rebuild even greater than before, where now are ashes and ruins.

* * *

Mr. H. Reepen, our correspondent in Germany, will not be able to come to Chicago this year, as had been expected. We have received the following letter from him, dated July 3, 1893, which explains itself:

> FRIEND YORK:—Please let the readers of the AMERICAN BEE JOURNAL know, that the Minister of Agricultural Affairs has not been able, to his great regret, to grant a supporting for the delegate, as the funds were not sufficient, and as I cannot afford the long and expensive journey from my own revenues, I am *very* sorry to say that I cannot go to Chicago.
>
> Sincerely yours,
>
> H. REEPEN.

Mr. Reepen's host of American bee-keeping friends will regret to learn the above news, for doubtless many of them had counted much upon seeing him at the great bee-convention in October here in Chicago. But if we cannot be favored with seeing Mr. Reepen, we can at least have the pleasure of reading his writings, some of which are to be found on page 108 of this number of the BEE JOURNAL, and more will follow latter.

* * *

Honey Analyses is the title of Bulletin 96, just issued by the Michigan Agricultural Experiment Station, under the direction of Prof. A. J. Cook. When mailing the Bulletin to us the Professor wrote as follows:

> Please urge all your readers to send to Prof. Wiley, at Washington, D. C., any *known* honey. We should have many analyses made to get at the exact truth. We ought to know the truth. This is important, and now is the time.
>
> I will mail Bulletin No. 96 to all who write for it. Yours truly,
>
> A. J. COOK.
>
> Agricultural College, Mich., July 14, 1893.

The Bulletin contains several tables showing the results of the analyses of nearly 60 samples of honey by Prof. H. W. Wiley, of the Department of Agriculture at Washington; by Prof. M. S. Scovell, Director of the Kentucky Agricultural Experiment Station at Lexington; and by Prof. R. C. Kedzie, chemist at the Michigan Agricultural Coll.

It is a very interesting document, and the various "analyses show conclusively that our chemists can easily distinguish honey adulterated with glucose (the only adulterant that is likely to be used) from all honey except that produced from honey-dew. All three of the chemists at once detected two of the samples which were adulterated" purposely, but of course not indicated in any way to aid them in their detection.

In giving a sort of concluding "Summary," Prof. Cook says:

> We are thus assured by these analyses:
>
> 1st. That chemists can easily detect adulteration of honey by use of glucose, in all cases where it is likely to be practiced. The same would be true if cane sugar syrup was mixed with the honey.
>
> 2nd. That a probable method to distinguish honey-dew from honey adulterated with glucose has been determined by these analyses. The right-handed or slight left-handed rotation, together with the large amount of ash, and small amount of invert sugar indicate honey-dew honey. As honey-dew honey will never be put on the market, this question is of scientific rather than practical importance.
>
> 3rd. As yet the chemist is unable to distinguish between cane-sugar-syrup honey (by which we mean cane-sugar syrup fed to the bees and transformed by them into honey, and not cane syrup mixed with honey, which is adulteration pure and simple, though a kind not likely to be practiced), and honey from flowers. As the best cultivated taste cannot thus distinguish, this seems of slight importance. If it should prove to be important to be able to distinguish them, it is probable that the chemist will discover the means, as chemistry has very delicate eyes, and can usually search out very slight differences.
>
> We see that there are yet unsolved problems in this direction, and it is desirable to follow up the investigations. Prof. H. W. Wiley is desirous to do so until the last fact is discovered. To better accomplish this he desires samples of three or four pounds each of honeys from any *known source*, especially honey-dew honey, and that gathered very rapidly. Sugar-syrup honey will also be very acceptable. Such samples may be sent to Prof. H. W. Wiley, Division of Chemistry, Department of Agriculture, Washington, D. C. The express will be paid by the Department of Agriculture.
>
> I wish to thank the three distinguished chemists who have rendered such able assistance in determining these valuable results. A. J. Cook.
>
> Agricultural College, Mich., June 29, 1893.

Let all who can do so, send samples to Prof. Wiley *at once*, as directed in the latter part of Prof. Cook's closing remarks.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—Ed.

Colony Not Doing Well.

I have one colony of bees that are nearly black, and are not doing well. They wintered all right, but have not sent out any new swarms, or stored much honey. Would you advise putting in a new queen, or would you put in a pure Italian queen? E. R. Benson.

North Adams, Mich.

Answer.—It is sometimes the case that a colony will be very weak in the spring, and the queen seems to make poor work at laying, but afterward, as the weather gets warmer, and the size of the colony increases, she will show herself very prolific. But when the colony is at a stand-still under favorable circumstances, it is pretty safe to say that the queen is at fault. Even if it be said that the fault is with the workers, the only way to have better workers is to change the queen.

The nearer you can come to pure Italian stock, the better, when it comes to introducing a queen; and you will probably find that the introduction of a good queen will set everything to rights.

Driving Out Surplus Virgin Queens.

Do bees often drive their (surplus) virgin queens from the hive without injury? The reason I ask is this:

I had a very strong colony which cast a swarm on June 5th, a second on the 14th, and a third on the 16th. In the evening after casting the third swarm, I noticed that the bees were dragging out young queens. I took two of them from the bees, and they seemed to be unhurt. Now, the first swarm lost its queen the second day after swarming, and had started several queen-cells. I took one of the queens taken from the bees and slipped in this queenless colony; two days after I opened the hive, and found the bees had accepted this virgin queen and had torn down their cells, and to-day the young queen is busy filling the combs with eggs.

On the morning of the 17th I found

another queen on the front of the hive, which I gave to one of my neighbors, who killed the queen of a full colony and introduced the virgin queen. That one is laying also, proving that they were not hurt. From all the books at my command, I find the oldest queen kills the rest when swarming is over.

J. F. Truesdell.

Duncan's Falls, O., June 27, 1893.

Answer.—Bees are the most aggravating creatures imaginable. Just when you think you know what to expect of them, they will turn a sharp corner on you and astonish you by doing just the opposite of what you expected. It is so commonly the case, that the books are pretty safe in putting it down as a rule that the first young queen that hatches out destroys the others in their cells. But every bee-keeper of sufficient experience knows that sometimes a number of queens will be at liberty at the same time, and then it is not a matter of greater age, but of superior strength and skill as to which shall be the survivor.

Occasionally a young queen may be seen disconsolately sitting outside a hive, whether it be that she has been driven out by the workers, by some rival, or what not. But you will probably find that in the majority of cases all young queens that are brought out of the hive by the bees are dead queens.

Why were the Queens Killed?

Why did the bees kill two queens in an upper story, *a la* Doolittle? Having prepared ten queen-cells and placed in an upper story with a queen-excluder, on June 16th, on June 26th I had 7 of the 10 cells completed, 4 of which I placed in 4 colonies made queenless for that purpose 48 hours before. Those cells placed in colonies hatched, and are all right. I left three of the cells on the stick, after putting the cells in the hives. I had made a queen-excluder division in the upper story mentioned; on one side I had two cells on the stick, and on the other side a comb of brood and one of honey, with a cell on the brood-comb. Now, then, I had two nice queens hatch, one on each side, but—about 36 hours after they hatched out, I found one had been killed by the bees, and the other one being balled, both are dead. D. A. Cadwallader.

Prairie du Rocher, Ills., June 30.

Answer.—It isn't of so much consequence to know *why* bees do certain things as to know *what* they will do under certain circumstances. You will probably find that sometimes bees will rear queens in the upper story, just as yours did, and that sometimes they will uterly refuse to do anything of the kind. So they will sometimes continue the young queens and have them go to laying, and sometimes they will do as yours did. Just what makes the difference seems pretty hard to tell. Possibly being nearer to the brood-nest, or farther from it, may make a difference; but there is an interesting field here for investigation.

Drawing Out Foundation for Combs.

I have a quantity of frames and sections filled with foundation ready to be worked by the bees. Would it be possible to put a few colonies to work this foundation into nice combs without storing honey or pollen in the cells, and remove these same frames of comb, to be filled with honey by other colonies in my apiary? Could it be done? If so, how can I do it? Michael.

Answer.—No, you cannot get bees to build comb, either with or without foundation, unless they have a chance to store something in the comb. They will draw it out a little way before storing anything in it, and you can get them to do that, if you wish, by simply putting the foundation where they will be obliged to cluster on it. Of course this must be at a time when bees are storing. The Oatmans used to credit a good deal of their success in getting large crops to the fact that full sheets of foundation in brood-combs were given in the brood-nest just long enough to be drawn out into shallow cells, then cut in pieces and put in sections.

The Illinois Honey Exhibit at the World's Fair is now being put in place by Bros. Jas. A. Stone and J. M. Hambaugh, who called at the Bee Journal office last Saturday. They are anxious that Illinois shall have a fine exhibit, and desire those who have honey, or anything else in the apiarian line that they think will be suitable for exhibiting, to write them *at once*, so that arrangements may be made to have it sent to the World's Fair. Address, Messrs. Stone & Hambaugh, care of W. I. Buchanan, Chief Agricultural Department, World's Fair, Jackson Park, Chicago, Ills.

BIOGRAPHICAL

JAMES A. STONE.

One of the first bee-keepers we met at the convention of the Illinois State Bee-Keepers' Association here in Chicago, last fall, was Jas. A. Stone, its genial and efficient Secretary. We had had quite a good deal of correspondence with him in previous months, and had thus come to count him among our esteemed friends; but when we came to meet him face to face, and learn of his great popularity among all who knew him best, then it was that we began to appreciate his value to bee-culture, and to prize his friendship more.

JAS. A. STONE.

Mr. Stone has for some mouths been replying to questions in our department of "Queries and Replies," and hence we desired the more to present him somewhat formally to our readers in the Biographical part of the Bee Journal. Through the kindness of some of his very good lady friends, we are now permitted to learn something of the characteristics of the man who signs his name "Jas. A. Stone." Here is what "One of Them" has to say about him, and it doubtless will be somewhat "surprising" to Bro. Stone when he reads it in this number of the Bee Journal:

Visiting the wife of the subject of this sketch, I heard her remark that her husband was in a dilemma—wanted very much to please his friend York, of the American Bee Journal, by complying with a request to send his picture and biography for publication; that the picture had been sent, but he had nothing of importance as biography; could only say he was born on May 6, 1842, in Sangamon county, Ills., on the farm his father "entered" near Springfield, where he now lives with wife and only son; and also had the honor of being Secretary of the Illinois State Bee-Keepers' Association since its organization. I said, "Let us, the ladies of his neighborhood or Sunday-school class, 'write him up.' They don't want to wait until he is dead to say what *they* think of him. (His wife being *all right*, *too*, just let's us admire him all we please.)"

He always has the best and most attractive displays of honey and bee-supplies in the county; takes the first premiums on both, at all our county fairs; and his honey is put up in such an attractive manner that it always commands the highest market prices. Yet he does not make bee-keeping his specialty, but with his flock of Oxford Down sheep on one of the very prettiest farms in Sangamon county, *we* think is something to boast of.

We also think it is something to have been elder of the Presbyterian church since he was old enough to fill the place, and Sunday-school Superintendent for 13 years at one time, and has been the Sunday-school teacher of a class of young ladies for *ten* years, and they say they are going to keep him *that many* more. Two of his class are missionaries in Siam, and another, the third one, has just offered herself to the Foreign Board.

And glad we were, when he assured

us, as Superintendent of the Illinois honey display at the World's Fair, he would cover from top to bottom the Illinois cases on the Sabbath day, if the Fair continued to be open on Sunday.

Is it nothing to have all the widows and orphans for miles around feel free to go to him for help and advice?

It is true he is *not* a politician, has never been in the legislative halls as a member, but *would have been long ago*, could we women have had *the ballot;* for all true womanhood honors the man who is *brave* enough to stand *staunch* and *true* (against multitudes of sneers and curses) for all reforms of the day; and has *the courage* to espouse the cause of *Prohibition* and *woman suffrage.*

Mr. Stone is not to see this till in the BEE JOURNAL. FROM ONE OF THEM.

Well, "Mr. Stone" did not see the foregoing "till in the BEE JOURNAL" this week; but if "One of Them" doesn't wish, very soon after he does read it, she *wasn't* "One of Them," or was one of the two of them in Siam, why we will just miss our guess, that's all. However, we are glad that Miss "One of Them" wrote just as she did, for we are sure if she hadn't we wouldn't have known so much of Bro. Stone. He is well named—Stone—and we see he stands as solid as a stone for what he believes to be *right*. May his tribe increase!

◆

"The Winter Problem in Bee-Keeping" is the title of a splendid pamphlet by Mr. G. R. Pierce, of Iowa, a bee-keeper of 26 years' experience. It is 6x9 inches in size, has 76 pages and is a clear exposition of the conditions essential to success in the winter and spring management of the apiary. Price, postpaid, 50 cents; or given as a premium for getting one new subscriber to the BEE JOURNAL for a year. Clubbed with the BEE JOURNAL one year for $1.30. Send to us for a copy.

◆

Mr. Thos. Johnson, Coon Rapids, Iowa, has sent us samples of Italian, Albino, and Golden Italian bees. They are all fine bees, and especially the Albinos and Golden Italians are distinctly and beautifully marked. No wonder Mr. Johnson took the first premium in his three varieties of bees at the Iowa State Fair last year.

THE LAND OF DZIERZON

CONDUCTED BY

H. REEPEN,

OLDENBURG, GROSSHERZOGTHUM, GERMANY.

Women as Bee-Keepers.

Great efforts have been made in Germany within the last two years to encourage our "better halves" in keeping bees. Lectures for lady bee-keepers have been held in different parts of the Empire, and the results are the very best.

◆

Langdon Non-Swarming Attachment.

This device is of highest interest, but if you don't put water in the hive as soon as the supers are all on the other hive, the open brood will die, and if Mr. McEvoy is right, you will get foul brood easily. But happily Mr. McEvoy's statement is only partly correct.

◆

How to Fill Combs with Water.

If you want to fill combs with water, sugar syrup, honey, etc., only fill a tin case, which is a little higher, and two or three inches broader than the comb, with the liquid, put the empty comb into this case, and then place this case into the honey extractor. Turn the handle of the extractor a few times, and through the centrifugal force the air which is in the cells will escape, and the liquid will fill the cells immediately. Do you know a better way? If so, please let me know.

◆

Two Kinds of Foul Brood in Germany.

There are two different kinds of foul brood. The one is caused by rotten brood, and can be cured within some months, and the other by the Bacillus alvei, when there is *no* rotten brood in the hive, nor in any other hives of the apiary. When you see the larvæ getting a little *yellowish*, the colony may be the best and the strongest of your apiary, then there is something wrong, and you may be sure that your bees have the *real* foul brood, and you are a very lucky man if you cure it within a year or two without destroying your colonies. Put a healthy colony into an infected hive, and you will not have to wait long for this colony to be infected, too. I am afraid "a terrible lot of damage" will arise through Mr. Wm. McEvoy's saying that an "empty hive never gave the disease." (See page 597.) This statement of mine is not "guess-work" or "opinion," but *experience.*

It happens, of course, very often that rotten brood and the Bacillus alvei come together, and therefore the opinion is often to be found that foul brood *only* arises if there is rotten brood in the hive; but I am very sorry to say that it is not correct.

Bees Getting Water or Nectar.

Some time ago Mr. Doolittle wrote in the AMERICAN BEE JOURNAL that one could not decide whether a bee brings water or nectar, without killing her and examining the honey-sac. I suppose Mr. Doolittle was joking a little bit!

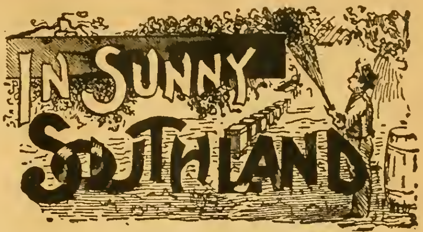
If you want to see what a bee carries into the hive, only catch her by the wings, press the abdomen *gently* with the fingers, but mind that she does not sting you, and sometimes immediately, sometimes after a little more pressure, she will vomit a little clear drop of liquid, as soon as you put one of your fingers close to her mouth. Only taste this drop, and your tongue will easily decide whether it is water or nectar.

If I want to know what kind of taste the nectar of a certain flower has, I try to catch a bee, when busy on the blossom, and by the foregoing method I know it at once, and can afterwards compare it with the nectar of bees just entering the hive. So I know for sure what kind of flowers the bees are gathering from.

Convention Notices.

ILLINOIS.—The summer meeting of the Northern Illinois Bee-Keepers' Association will be held at the residence of O. J. Cummings, 2 miles northeast of Rockford, Ills., on Aug. 15th, 1893. A good meeting is anticipated. Everybody is invited. Come and see Mr. Cumming's methods of handling bees.
New Milford, Ills. B. KENNEDY. Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land, FRANK BENTON. Sec.
Washington, D. C.



CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

No. 4.—Texas and Her Resources.

(Continued from page 77.)

Stock, sheep, cattle and horses do well here, also poultry and swine are easily raised. Last, but not least, here is the paradise of the busy bee. There are many large apiaries in this region, numbering from 200 to 800 colonies, and their keepers are like the tongue of a wagon—do not say much, but always get there first; and as Dr. Miller has often made fun of my fishy stories about the profits of a single colong being $10 in one season, I will now state that one friend writes me, who runs 800 to 1,000 colonies of bees, that his spring crop was 66 pounds of honey per colony on an average, and two more crops yet to gather. What do you think now, Doctor? Aren't you sorry you live away up there in that snowy region? Just think of it—800 colonies, not one or a dozen, but 800, and an average of 66 pounds, and called a short crop, with two more harvests yet!

I shall be located at Beeville next year, and for my lifetime, I expect, and will rear queens the year around. Here we have no winter troubles, no cellars to build, and I have often asserted that if our Northern bee-keepers were here they would soon realize large profits, as they will likely work hard all the year as they do up North, and soon run into large apiaries. And then just look at our shipping facilities! We have Galveston, Velasco, Rockport, and Corpus Christi, which open up to us a market to the world, as these are all good seaport towns. Then railroads penetrate the inland States and cities in all directions, and ere long this fine country will be filled up with a progressive people, and you had better come soon if you wish a home cheap, as in some places land is yet donated to settlers by the

State, and other lands are cheap, and on easy terms.

Timber is plentiful, and water is plentiful in most counties. Then, just think of the size of Texas! Take New Hampshire, Rhode Island and New Jersey, all of them, and set them down in Texas, and you could scarcely tell that she had grown any.

CLIMATE OF TEXAS.

I doubt very much if there is a country on the globe where the temperature is as nearly the same the year around as in south Texas, ranging from 45° in winter to 70° in summer, on an average, and seldom runs down to 30° in the coldest weather, nor above 90° in the hottest of summer.

HEALTH IN TEXAS.

South and southwest Texas is said to be almost a sure cure for catarrh and lung troubles, as the consumptive here finds rest, and is often cured if not too far gone. Then kidney troubles and like affections disappear by permanent residence here. Lung troubles and dyspeptics are scarce among natives of southwest Texas. Now, while these facts are all flattering, there is a great deal of hilly and poor land in southwest Texas, and out from the ocean drouths occur occasionally, which are likely to discourage some people; but if you wish to live in one of the most pleasant countries on the globe, come to southwest Texas.

Oh, I came nearly forgetting the sugar plantations. Here in south Texas we raise large amounts of both sugar and syrup, and the sugar plantations, with their long rows of tenant houses, all nicely painted, and sometimes nearly a mile in length, remind one of a little, narrow city, with here and there a large sugar plant, where the cane is worked up. JENNIE ATCHLEY.

(Concluded next week.)

Bee-Keeping in Arkansas.

Bees have not stored a great deal of honey here this year, as there has been too much rain, but I hope we will have a good fall flow of honey. The prospects are good now for it.

We have a very good location here for bees, but there are not many kept here. We have a great many wild flowers that furnish much honey. I have always kept bees in old box-hives until two years ago, when I transferred them into frame hives, and since I commenced taking the BEE JOURNAL I have gone to keeping bees in the right way. I use what is called the Thompson hive. It has 10 frames in the brood-chamber, and 8 in the super.

JOHN F. COFFEE.

Hope, Ark., July 3, 1893.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world.. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported	$6 25
Error last week	25
A. G. Amos, Delhi, N. Y	50
James Wood, Baker, Nebr	25
Mrs. Bertha Moulton, Nye, O	25
A Friend, Newton, Pa	25
Total	$7 75

Alley's Queen-Rearing book, or "Thirty Years Among the Bees," gives the result of over a quarter-century's experience in rearing queen-bees, and describing the practical, every-day work. By Henry Alley. It contains an "Appendix," showing the improvements made in queen-rearing the last four years. Very latest work of the kind. Nearly 100 pages, with illustrations. Price, postpaid, 50 cents; or clubbed with BEE JOURNAL one year, for $1.30.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

Queries and Replies

The Nunber of Seasons a Queen Should Lay, Etc.

Query 881.—1. How many seasons should a queen be kept laying? 2. What is the average age of queens if left alone?—O. H.

1. Two years. 2. Two years.—S. I. Freeborn.

They are good for about three years.—J. P. H. Brown.

1. Not more than three. 2. I cannot say.—Jas. A. Stone.

1. Two. 2. Somethihg over three years.—P. H. Elwood.

1. Until her fertility is impaired. 2. I don't know.—J. M. Hambaugh.

1. As long as she is prolific. 2. From three to four years.—G. M. Doolittle.

1. As long as she is prolific. 2. I presume from two to three years.—A. J. Cook.

1. Perhaps two is as long as profitable. 2. About three years.—Eugene Secor.

Three or four years. The bees usually supersede them when too old.—Dadant & Son.

1. Probably until the close of the third season. 2. I don't know.—Mrs. L. Harrison.

1. So long as she does good work; they vary. 2. Three to four years.—Mrs. J. N Heater.

1. We keep our queens as long as they do good work. 2. I should say about two years.—E. France.

1. Not to exceed three. 2. About the same; at the first sign of deterioration the bees supersede her.—W.M. Barnum.

1. Under ordinary circumstances, as long as she does good work at egg-laying. 2. Nearly three years.—James A. Green.

1. Two full seasons is the time advised by most who practice re-queening. 2. About four years, I guess.—J. H. Larrabee.

1. Some might be kept four years, some two, and some none. 2. I don't know. At a guess, perhaps they live three years.—C. C. Miller.

1. Not more than two; I favor one. If the queen is especially valuable for breeding, I make a difference. 2. I do not know.—R. F. Holtermann.

1. I aim to replace them the season that they become two years old. 2. Perhaps 2½ years, though many live to be past three years.—R. L. Taylor.

1. As many as she will lay abundantly. I let my bees manage that. 2. I think they will not average more than two years. I have had but few to live three full years, and only one to nearly complete the fourth year.—M. Mahin.

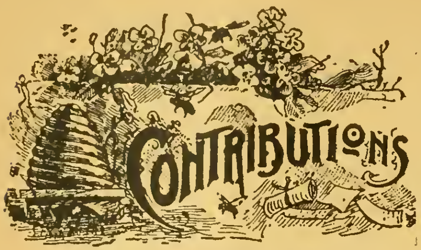
1. A queen begins to fail after the second year, and the most successful honey-producer will see that his queens do not get much older than that. 2. If left entirely alone they would probably average about three years.—C. H. Dibbern.

For myself, I keep a good queen just so long as she proves vigorous and active, irrespective of age; as soon as she shows the least symptom of failure, I remove her. 2. About three years, with myself. I have known them to live and prove vigorous for five years; and also to play out the first season.—J. E. Pond.

1. Until she fails to attend to business properly. 2. I don't know. I had an imported Syrian queen once that I "let alone" until I knew her to be about six years old. I then sold her for $5.00, and she was sufficiently fertile to produce bees enough to sting the man who bought her and all his help out of the yard.—Emerson T. Abbott.

1. I now, after long experience, leave that to the bees. They will make fewer mistakes along this line than I am likely to make. 2. I clip the wings of my queens, and in this way I keep pretty nearly up with them. The average is about three years. Many queens are superseded at two years old; many more at three; and nearly all at four.—G. W. Demaree.

1. Taking everything into consideration it might be best to only keep queens 2 years; and to answer the second part of the question, I will say that two years is about an average life for queens in this locality. But good queens often do good service even the fourth year. 2. It really would be hard to average up, as so much depends upon circumstances.—Mrs. Jennie Atchley.



A Great Experience with Ants in California.

Written for the American Bee Journal

BY C. W. DAYTON.

I notice Mr. Lovesy's claim for Utah being the worst place for ants, and think he should except California. Here I am troubled more or less with four sizes of red ants less than 3/16-inch long. Then there are still many more lengths of the same color, all the way up to ⅞-inch, which is the largest ant I have seen. They are very fond of honey, and search for it only at night. If a club was thrown at one of these ants, he would prepare to meet and demolish it with all the rage and courage of a grizzly bear. This ant may be easily caged by fixing a bait of honey and a bee-escape.

Then there are the corresponding sizes of black ants. I kept 50 colonies of bees on the north side of a hill about three months last winter, and ants about ⅛ of an inch long were constantly carrying away the honey. The whole hill seemed to be full of them. At first I tried to exterminate them with poisoned honey, but finally I set the hives up on stakes 6 inches high, and painted the stakes with tar. Bees that I set on the south side of the hill at the same time used much less honey, and kept in much the best condition, not being troubled with ants.

Some red ants about ⅜ of an inch long were doing a "land-office business" in my extracting room about a month ago, and seemed to recruit about as fast as I could trap them in the honey-room, but when I followed up their trail about 100 feet away, and poured burning kerosene into their burrow, they immediately disappeared.

There are several varieties of ants of the same size. In some localities nearly every blossom of white sage will contain an ant after the honey.

Then there is a very numerous kind of ant that seem to care nothing for honey, but will congregate where there is water. I notice by leaving water in a wooden pail will cause them to congregate and burrow under it; also under bee-hives, and they fight the bees when they come in their way. Possibly the dew on potato-tops might attract them when all the rest of the ground was dry. The best I could do for these was to entice them into one place by tubs or wet boards, spray them with gasoline, and set it on fire.

In some places greasewood, white and black sage, wild buckwheat, and wild alfalfa have for years grown and died, thickly covering the ground with rubbish amongst a new growth of the same, making a most excellent habitation for ants.

Soon after putting up a tent and beginning extracting, I discovered that several kinds of ants were numerous, and when I would find a nest of them making a raid on the extractor or capping can, a dose of kerosene would usually check them enough to be tolerated. But about two weeks ago a new set of black ants put in an appearance, whose number approached the intolerable, as they simply swarmed into and upon everything either sweet or sour.

Soon after them also came the spryest little red ants I have ever seen, and for pilfering were simply astonishing. I found a belt of them six inches wide, and as close together as the cells in honey-comb in the extractor. I took up their trail, burning all the grass over them, and put burning oil in their burrow. Then they were entirely gone for about six hours, when it was found that they had established in new quarters, and formed a trail to the extractor about two feet wide. By raking up all the grass and weeds, and spreading it over the ground and burning it, their progress was checked again.

Up to noon the next day no ants came, so I left the apiary for two days. On my return I found their numbers increased at least ten times. There were six or eight trails, and they had spread out on the old trail about ten feet wide. Several colonies of bees that came in their way swarmed with ants inside and outside the hives. Three colonies were strong extracting colonies, with upper stories, and when I rapped on the hive no response came, while other colonies were working lively. These hives were opened without smoke—a thing I had never been able to do before, and ants were searching thickly all over the combs and amongst the bees. Thousands were taking honey from cells. These ants are so small and quick in movement that bees can do nothing with them, and seem to be entirely at their mercy. After thinking over the matter for a few moments, I concluded that burning oil or straw was entirely inadequate for so extensive a case, so I bundled together a quantity of greasewood brush with wire, and when it was well on fire dragged it sidewise over the ground, and I find by this plan that I can destroy in a half hour all the ants that can accumulate in a week.

Pasadena, Calif., June 30, 1893.

Bee-Keeping in East Tennessee —Non-Swarming.

Written for the American Bee Journal

BY H. F. COLEMAN.

After an almost unbroken honey-flow here for nearly three months, the season is now drawing to a close. The season has been better than an average, but the honey crop is rather small. The bees were so weak in the spring that they did not build up in time for the poplar, which affords our greatest surplus. The increase from natural swarming has been very great. In many instances first swarms have cast swarms, with the usual propensity to afterswarming, and the old colonies that swarmed early have swarmed again. We now have as many, or more, bees than we had before the disasters of last winter.

East Tennessee, especially the mountainous parts, is one among the finest honey localities in the United States, but it takes great care and attention to produce large yields of comb honey here. Our seasons are so long, that with the high pressure necessary to produce comb honey, there is too much swarming and too great increase of colonies.

THE LANGDON NON-SWARMER.

We have waited and watched with interest for reports of experiments with the Langdon non-swarming device, but have fears as to the result. Rambler's report, as published in *Gleanings*, has added to our fears, with reference to the loss of queens in using that device, and there are other objections to it equally as serious, in my opinion; but for the want of space and other reasons, they will not be mentioned just now. For the present, we know of nothing better than the plan practiced by Mr. Doolittle, and the jumping plan, to prevent or keep down the swarming fever at a time when not wanted; but neither of these plans works perfectly where the seasons are as long as ours.

Bee-culture in East Tennessee is now on a higher plain than ever before, and in my opinion great results may be expected from this locality in the future.

Sneedville, Tenn., July 11, 1893.

Experiments in Apiculture Made in 1892 at the Michigan Experiment Station.

Reported to the Department of Agriculture

BY J. H. LARRABEE.

(Continued from page 53.)

THE EVAPORATION OF HONEY.

Nectar of flowers taken into the stomach of the bee undergoes certain chemical changes before it is finally deposited as honey in the cells of the honey-comb. The recent analyses, by direction of the United States Government chemist, and those instituted at the Michigan State Experiment Station, prove that there is no chemical change made in the honey by the bee after it is deposited in the comb. There, however, remains much water in this honey that must be evaporated by the hive and the current of air through the hive caused by the fanning of the bees. It is well known that this labor of evaporation and the room occupied by this thin honey interferes greatly with the rapid gathering of nectar. In this opinion I am confirmed by a study of many records of colonies placed upon scales during the honey-flow.

It is often desirable to extract all of the honey gathered from one species of honey-plant before the flow from other sources begins, and before the former has ripened to the usual consistency of good honey. The property of granulation in honey is so troublesome that its prevention would be very desirable. The experiments in this line have plainly indicated that the "water of crystallization" can be easily expelled by a proper artificial heat and the product sealed, so as to preserve it in a liquid state for an indefinite time. For these reasons it was thought best to experiment in this direction with various forms of artificial heat in the effort to devise some cheap and sure method to assist the bees in this work.

For this purpose there were constructed a series of six shallow pans 19 by 28 inches in size, with partitions 2 inches in height, open on alternate ends, similar to the partitions in a maple-syrup evaporator. These were arranged in a cabinet, one above the other, so that honey entering at the top was obliged to flow some 75 feet before passing out at the bottom. An oil-stove was placed beneath the whole, and a pipe at the top caused a current of heated air to pass upward over the honey. The fumes of the stove were carried off by means of a second pipe, in order to avoid all danger of their injuring the flavor of the honey. Honey of average body with 10 per cent. by weight of water added was reduced again to the normal condition by passing twice through the pans at a temperature of 120°, and about 100 pounds per day was evaporated at that temperature. Thin nectar, extracted from the hives very soon after being gathered, was evaporated to the thickness of good honey at about the same rate.

This apparatus was kept in operation about ten days upon honey of various thickness, and upon clear water with the above definite results. The flavor of the first honey was injured—probably by the first acid action of the honey upon the outer coating of the tin. Afterwards this was not as apparent. The color was also somewhat affected.

The heat of the sun was also tried for purposes of evaporation. A shallow pan 28 by 54 inches in size was filled 3 inches deep with thin honey. This was covered with glass 6 inches above the honey, and left in the sun for four days, when about 5 per cent. of the moisture was evaporated. As the honey lies at rest the water rises to the top, somewhat aiding evaporation. The flavor and color are not affected as much as by the method of running through pans. In this way honey with 30 per cent., and even 40 per cent., of water added was evaporated to the consistency of very thick honey in three weeks' time, so thick that it has not at this date showed any signs of granulation.

During favorable periods of sunshine a temperature of 165° was reached. By this method a tank 4 by 6 feet, with 6 inches of honey, and weighing 1,300 pounds, should be evaporated 10 per cent., or from the consistency of freshly gathered honey to that of average body, during about two weeks in July or August.

The common method of exposing to the air in open vessels in the warmer upper story of a building was also tested with honey to which 10, 20, 30 and 40 per cent. of water had been added. That having 40 per cent. added became strongly fermented in a week's time, while only a slight change had taken place in the 30 per cent. dilution, and at the end of a month it tasted like a very poor quality of commercial extracted honey, or like honey-dew. The 20 per cent. dilution was not nearly as bad, and the honey, with only 10 per cent. of water added, was during the month returned to the consistency of very fair honey.

Nectar extracted two or three days after the combs were placed in the hives contained, during the dry weather of July and August, from 10 to 15 per cent. of water above the amount always found in honey that has been sealed in the comb by the bees. This was determined by evaporating in test tubes in hot water.

Summary.—1. The method at present promising best results for artificial evaporation is that by solar heat under glass well ventilated. A small portion of a greenhouse or forcing-house arranged for conserving the heat of the sun, and so located that honey could be run into the shallow vats directly from the mouth of the extractor, and drawn off from the bottom of the vats into marketing receptacles, should give good practical results.

2. Very thin honey or nectar will not sour as quickly as supposed by many, and may be safely kept during any period of cloudy weather we may have during the hot summer months.

3. The method of exposing to air in a warm room cannot be depended upon to ripen very thin honey, although it may be serviceable for evaporating a very small percentage of water.

4. The method of evaporating by artificial heat of stove or furnace is expensive and troublesome, requiring constant watching and care, and not giving as good results as had been hoped for.

5. The possibilities in the line of evaporating honey for the purpose of increasing the yield and preventing granulation are very great. A series of experiments to determine the increase in production by extracting freshly-gathered honey would be next in order and value. When the utility of this method is fully demonstrated, supers with fixed frames and extractors holding whole cases will be used, and other ap-

paratus conformable to the needs of the new system.

FEEDING BACK HONEY.

Feeding back extracted honey to secure the completion of unfinished sections at the close of the harvest is practiced by some apiarists, but with varying financial success. Extracted honey can be transported long distances with much greater safety than can comb honey. For this reason it has been thought it might be profitable to feed bees extracted honey costing 7 or 8 cents per pound to produce comb honey selling at 13 to 15 cents, locating the apiary designed for this purpose near a large city or other favorable market. With the idea of adding light upon this subject, extracted honey was fed to a number of colonies under the following conditions:

The hives were contracted, and the queens kept in the brood apartment by means of excluding zinc. Five colonies were given two crates each of unfinished sections, the sections of the whole weighing 113 pounds. Three hundred and thirty-eight pounds of honey were fed these 5 colonies during 12 days. The honey was thinned with 12 per cent. of water, and warmed before feeding. The amount of finished honey obtained was 367 pounds, or a gain of 254 pounds by feeding 339 pounds of honey. The hives were weighed both before and after the honey was fed, and a gain of 36 pounds during the feeding recorded for the five hives. The following gives the results from a financial view:

254 pounds comb honey by feeding, at 14 cents	$35 56
36 pounds stored in hives, at 8 cents	2 88
	38 44
Minus value of 338 lbs. fed, at 8 cents	27 04
Profit as pay for labor, etc	$11 40

Two colonies were given crates of sections with full sheets of foundation, and were fed extracted honey, under the same conditions as the 5 colonies above:

	Pounds.
Amount of honey fed each colony	66½
Colony No. 1, finished comb honey	41½
Colony No. 1, gain in weight of hive	9
Colony No. 2, finished comb honey	38
Colony No. 2, gain in weight of hive	7½

Taking these two colonies as a basis, the following financial statement is made:

79½ pounds comb honey, at 14 cents	$11 13
16½ lbs. honey stored in hives, at 8 cents.	1 32
	12 45
Minus value of 133 lbs. honey fed, at 8c.	10 64
	$1 81

Deducting from this profit the value of the sections and foundation used, the actual profit, as pay for labor, etc., is, at most, nominal.

When this whole experiment was begun, and during the time it was in progress, no honey was gathered from the fields, but before the sealing was all accomplished, the fall honey-flow began, and for this reason the experiment was ended, and the honey removed sooner than would otherwise have been advisable.

The results obtained in this work, or in any experimental work of a similar character, might vary under more favorable or unfavorable conditions of environment, and a continuation in various seasons, and under other conditions, would alone give really reliable results. The above trials are, however, very encouraging, and longer and varied work in this line is desirable.

Agricultural College, Nov. 17, 1892.

Where was His Mistake ?—The Season in Nebraska.

Written for the American Bee Journal

BY DR. JAS. B. HUNGATE.

While away from home with the National Association of Railway Surgeons' Excursion, Mr. E. Kretchmer kindly sent me an untested "Golddust" queen, to replace one I got of him last fall that was clipped. Mr. A. B. Campbell, who handles bees here, very obligingly took charge of the queen, and went to my apiary and made up a nucleus, fixing the cage so the bees could eat her out, and laid it on top of the frames, covered the box and came away.

Now the colony he used in making the nucleus was a rather weak one, with a young queen that I got in April from Mississippi. She proved to be an excellent layer, producing finely marked five-banded bees, but she herself was darker than usual, with an extraordinarily long and full abdomen. I prized her much.

When I came home, five days after Mr. Campbell's manipulations, and he told me what he had done, I thanked him, and asked him if he had examined to see if the queen was liberated. He said he had that day, and was surprised to find her laying so abundantly.

The next day I put frames of bees and hatching brood in an eight-frame Langstroth hive, and waiting until dusk I went to the nucleus box to add the queen and her bees to them, so they were all young bees. Imagine my surprise on finding my Mississippi queen in the box, but nothing resembling "Gold-dust." I at once opened the hive alongside from which the first nuclus was made, and, as I anticipated, found about 20 queen-cells nearly ready to cap over.

I took a frame of these and gave to the nucleus I had made in the morning, so they might have a mother-bee that was a daughter of my beloved Southern beauty; at the same time much regretting the loss of the longed-for "Gold-dust." I then took the first nucleus and queen, and put them back in their original hive without destroying the cells in it, believing that they would do that for me, and accept their mother. I waited five days, and looked in to see the queen-cells still there, and no eggs in the two frames I picked up, and thought I had now lost two queens instead of one.

To-day (June 14th) I examined the nucleus I had given the frame containing queen-cells, and found a fine young queen just hatched, and exactly resembling her mother. Then I went to the colony Mr. Campbell had used, to see if I could find a new queen there, but, behold! eggs and larvæ in all stages, and the same old Mississippi queen, or her exact counterpart.

Now, Mr. C. contends, and proves by witnesses, that he found the queen before making the nucleus, and carried her on the frame down the hill to show off her beauty to a friend, and after making the nucleus in a hurry—for a storm was coming—he positively put her back into the hive. Query: Where was the false manipulation? Is the queen I got from Mr. Kretchmer an exact counterpart of my Mississippi queen, and that the latter was dropped in the grass from the frame in the haste? Or, as I think, is Mr. C. not mistaken about where he put the old queen, and got her into the nucleus-box, and she destroyed the caged one? I found what I took to be the dead body of the Iowa queen in front of the nucleus box the day I discovered my disaster.

Can any one throw any light on this case, and show Mr. C. his error? We learn more by our mistakes, anyway, than our successes.

Bees here are just beginning to get a little surplus, but many colonies have perished recently (while the owner's were watching for them to swarm) from starvation alone. In this particular the experience here agrees with that of the Omaha correspondent on page 746. I have watched my 15 colonies closely, and fed them just in the nick of time, and have not lost any.

Basswood promises a big crop now, and is only two weeks away. After we get it, I may write again.

Weeping Water, Nebr.

A Visit to the Apiary of Mr. G. W. Demaree.

Written for the American Bee Journal

BY J. M. PRATT.

Early in the morning of June 29th, I hitched up my old horse, that can travel something less than a mile in three minutes (and his fastest speed was when he got into a bumble-bees' nest some years ago), and off I struck for G. W. Demaree's place, at Christiansburg, a distance of a little over 18 miles by our county-make turnpike, all the way from my yard gate to his, through a beautiful farming country.

At 8:45 a.m. I rang the door-bell, and Mrs. Demaree came to the door. I asked for her husband, and she told me he was out in the apiary. So I told her that was where I wished to find him, also told who I was, and where I was from, and then I proceeded to find Mr. D. After a few words of introduction (and let me say right here that thousands of the readers of the BEE JOURNAL know him as well as I did before I went to see him), I told him that I came to spend a a portion of the day with him and his bees. He gave me a cordial welcome, and a shake of the hand, took my horse and put it away with abundant feed. Then we went to his honey-house, with its extractor, three large honey-tanks, honey in sections, honey in samples for many years back, a large book-case of law books and bee-literature, etc.

Then we went out to the bee-yard—all out in the sun, without any shade trees, but a shade cover made of wood. At one glance every hive could be seen. While I was looking around, Mr. Demaree lit up the smoker, and we began looking into hives of Italians, Carniolans and Punics. We found lots of honey ready to come off, in both frames and sections. I saw a colony that looked very weak; I was told they were the Punics, and had swarmed themselves to death. Well, we opened the hive—they were not dead, for in less than a minute they were boiling all over the top of the hive, like a kettle of hot water, and like steam escaping, around our heads. I was told they would follow for a half hour trying to sting, and so they did.

As we went from hive to hive of Italians, those Punics were still after us, and when we went to Mr. D.'s arbor, on one side of the yard, and were seated, the most amusing thing to me was to see our friend use his paddle on these Punic bees, as they came in under the arbor. I never saw him miss one but once. All were sent to the ground never to return.

Well, I didn't go out to see his bumblebees.

His solar wax extractor was at work in one corner of the apiary.

The remainder of the morning was spent in talking about bees and queens; drones and queens mating in the open air, and refusing to mate in a tent of confinement, all of which was very interesting.

I asked if he believed there was such a thing as male and female eggs, and if the queen knew just when she was going to lay the drone egg, so as to hunt up a drone-cell to deposit that egg. He said he thought the queen was prompted to do what she did by a natural instinct; and a line of thought presented itself here that we knew but little about.

Mr. D. kindly gave me a tested Italian queen, a bee-escape and a drone-trap.

At about 12 o'clock I was invited into the dining-room, where Mrs. Demaree had the table supplied with a bountiful dinner, of everything that a hungry man's heart could wish for.

Of all the apiarists that I have visited in this county of Shelby, Mr. Demaree was the most pleasant and profitable to me. There are no selfishness or secrets in his bee-business. I shall look for him to return the visit, and I shall do all in my power to make his stay as pleasant as he did mine.

I think the honey will not exceed one-fourth of a crop in this county this year.

Todd's Point, Ky., July 6, 1893.

* * *

"**A Modern Bee-Farm** and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the BEE JOURNAL for one year, for $1.70.

Convention Proceedings

Report of the Cortland Union Bee-Convention.

Written for the American Bee Journal

BY C. W. WILKINS.

It was my pleasure to meet many of the members of the Cortland Union Bee-Keepers' Association at my home, on Wednesday, May 31, 1893. The morning was spent very pleasantly in apicultural conversation and matters pertaining to the interest and pleasure of those present.

After the "cravings of the inner man" had been satisfied, the meeting was called to order by Pres. M. R. Wood, of Cortland. The reports of the Secretary and Treasurer were read and approved.

The place of meeting for our annual picnic was again fixed at the Cortland Trout Park, on account of its being more central, and presenting better accommodations and more attractions than any other location brought before the meeting. Miles Morton, of Groton, M. Fairbanks, of Homer, and J. L. Kinney, of Cortland, were appointed by the Secretary, at the request of the President, to act as a committee in assisting the standing committee in fixing the date, arranging programme for, and *booming* the picnic.

In a section containing the number of apiculturists of promise and success with which ours is blest, it is a shame, a disgrace to our vocation—indeed, it is a slur on civilization, that we are not represented in a more thorough manner, and that we do not show more interest in our work. Come. You are going to miss something of importance to *you*, if you are absent from our picnic.

The meeting next proceeded to ascertain the loss of bees during the past winter and spring. But few bees were lost during the winter—the spring is what did it, causing a loss which has reached at least an average of 29 per cent.

SPRAYING FRUIT-BLOOM.

As the premature performance of this

effort to protect the product of the orchard from the ravages of insects of destruction, have injured the stock of the apiarist quite severely in some sections, this subject was discussed to considerable length. The difficulty of controling this action of ignorance, malice or "pig-headedness" (as the case might be) of the farmers and fruit-growers, was so thoroughly appreciated by those present that it was decided that if legislation could not be secured against it, the former complaint only could be remedied. We need legislation controlling the time for the performance of this act!

BUILDING UP WEAK COLONIES.

Put extracting tops on your strongest colonies (now, during fruit-bloom) containing combs from your empty hives in which the bees have died, after the combs have been cleaned up and honey extracted. Use no queen-excluder now, and when combs contain brood about to hatch, or hatching, distribute them among the weak colonies in place of those which are empty. This also protects combs from the moths.

RE-QUEENING COLONIES.

Do not sacrifice a prolific queen for any or *all* other good qualities, should be our first axiom. Substitute a good queen or queen-cell for worthless cells in a colony from which a swarm has recently issued. Introduce a queen by placing the cage containing her underneath the quilt in contact with the bees, after the old queen has been removed, of course, until accepted by them. A valuable queen should be placed in a nucleus of young bees and brood, and built up to a colony.

CANDIED HONEY IN COMBS.

"If combs containing candied honey be placed in the hives, will the honey become liquid after the exposure of the season to the summer's heat?" This was answered in the negative. Such honey should be uncapped first, and extracted so far as possible. The bees will then clean it out.

CLEANING OLD COMBS.

How should it be done? Scrape the frame as much as you can handily, brush the dead bees from the comb, and then place it in, or on, a swarm, and they will do the rest.

SHIPPING COMB HONEY.

Paper boxes were decided to be better than glass for shipping purposes, as the breakage of one box does not daub up the rest.

The convention then adjourned to convene at the picnic, at the call of the committee. C. W. WILKINS, *Sec.*

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Aug 15.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

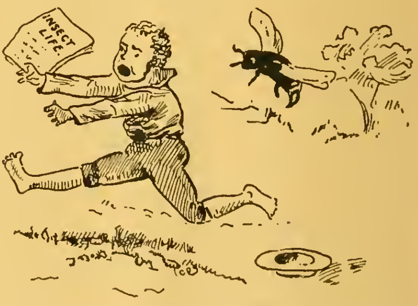
North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.......Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

Illustrated Poetry.



"*The wild bee's morning chase.*"—WHITTIER.

Dr. Miller's "A Year Among the Bees" is a book of over 100 pages. It commences with the necessary work in the spring, and runs through the entire year, detailing the methods of doing, as well as telling when to do, all that should be done in the apiary. Bound in cloth. Price, postpaid, 50 cents; or clubbed with the BEE JOURNAL for one year, for $1.35.

Our
Letter Box
Reports Prospects

☞ **Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.**

Had a Splendid Honey-Flow.

This vicinity has had a splendid honey-flow until this week, when it has been stopped by a very severe drouth. All my colonies that were in good condition on June 1st, have stored from 50 to 75 pounds of surplus comb honey each, of very fine quality. Much of it has come from red clover. J. A. C. DOBSON.

Brownsburg, Ind., July 15, 1893.

Small Quantity, but Fine Quality.

The honey season is over here, and but a poor yield at best, all from white clover; but our product is of the best quality, and an average of about 40 pounds per colony.

C. V. DEMAREE.

Zilpah, Ky., July 13, 1893.

"Try, Try Again," is His Motto.

I had 15 colonies of bees last fall, but during the winter and spring I lost them all. I have since bought 5 colonies, and mean to try again. F. A. RICHARDSON.

Cannon Falls, Minn., July 18, 1893.

Poorest Season for Years.

The white honey season has gone, and not a swarm of bees, and very little honey. We have to depend upon the fall flow; this is the poorest season for years, so far. We will live in hopes of getting a fall flow.

J. W. BLODGETT.

Empire Prairie, Mo., July 14, 1893.

Pure Linden Honey—Good Prospects.

I extracted from an 8-frame hive last evening. I looked at one, and they had the 8 frames nearly full again in two days. It is an out-apiary three miles from a linden grove, and is pure linden honey. Yesterday the wind was from the south, and the mercury was 108 degrees at the out-apiary; 100 degrees at home. Such weather would cook anything. To-day it appears cooler, and prospects are good for a good time for the "honey-flies." THOS. JOHNSON.

Coon Rapids, Iowa, July 14, 1893.

Pays to Read the "Bee Journal."

I put 42 colonies of bees in the cellar last fall, and in the spring found 7 dead, and almost all the rest weak in bees; so I united them until I had only 18 colonies, and they are in good working order, as you can judge, for I have taken off over 1,000 pounds of white clover honey.

Most of my neighbors that have had bees have lost them, and what are left are so weak in bees that they are getting no honey. I think that three-fourths of the bees died in this county last spring, and almost all that lived are so weak that there won't be much surplus honey to be sold from this county. I think if they would take the AMERICAN BEE JOURNAL, and follow its teachings, they would have better success. That is my advice to the bee-men of this (St. Croix) county.

A. E. BRADFORD.

Hammond, Wis., July 17, 1893.

Looking for a Good Fall Crop.

Bees are not doing much here this season, on account of cold, dry spring and scarcity of stores. They did not build up much until the honey-flow from white clover had commenced. About 95 per cent. of the bees in this locality died the past winter and spring, mostly from starvation. But we look for a good fall honey crop.

R. T. REYNOLDS.

Denison, Kans., July 18, 1892.

Plant Linden—Fair Bee-Year.

I am doing all I can to get linden planted for shade trees in this town. As it is the finest tree there is for shade purposes. It is as fast a grower as the swamp maple, in the same row, and makes the nicest tree. As far as I can see, this is a fair year with the bees.

The BEE JOURNAL is ahead of all the novels that are printed.

HERMAN E. KLOTH.

Glendale, O., July 17, 1893.

Button-Willow as a Honey-Plant.

Mr. T. W. Wheeler asked about willow as a honey-plant in the BEE JOURNAL of June 29th. I will try to answer him so far as my locality is concerned.

Button-willow furnishes a large amount of honey, and of good quality. The swamp land in this locality is timbered with it principally, and when in bloom the bees seem to give it the preference over the other bloom, and while it lasts the bees bring in honey fast. Here button-willow blooms in July, and from it the bees gather most of the honey during that time. I regard it as one of the best of honey-producing shrubs in this part of the State, and if Mr. Wheeler is located where button-willow abounds, he should visit it during its bloom, and see the bees at work. It is very interesting to me to go where the bees are gathering honey, and there watch them as they go from one bloom to another, collecting the nectar. I visited the swamp yesterday, and while the buttonwood (or button-willow) has only begun blooming, yet the bees were there before me, and the swamp appeared to be alive with them.

B. F. BOULTINGHOUSE.

Rockport, Ind., July 11, 1893.

Pulled Queens—Good Season.

Mr. Coleman's idea of using pulled queens (which he mentions on page 7) is interesting. That plan might prevent after-swarms in some cases, by getting a laying queen before the colony becomes strong enough to swarm again. Perhaps he can tell us something more about the matter. I have tried giving them a young laying queen, with good results, but I have never tried his plan.

The season still remains good. Those that had strong colonies, and prevented increase, will secure more than an average amount of surplus. Flowers seem to last much longer than usual, and fill the air with fragrance.

J. H. ANDRE.

Lockwood, N. Y., July 10, 1893.

Reports a Good Honey Season.

My bees are doing splendidly. My first swarm came out on June 17, and gave them a full set of empty combs, and in just two weeks they had a full case of sections all finished up, and at this date I have taken off a full case each from 16 colonies as nice honey as I ever saw.

We have white and Alsike clover in abundance. Basswood is in bloom now, and there are 2,000 trees within 1½ miles of my bees. It is not blooming as full as common, although I expect a good yield from it. I have 19 colonies, and all swarmed twice. I put all second swarms back.

I am selling comb honey for 13 cents per pound by the crate—not a very big price, but it is the best we can do here.

The AMERICAN BEE JOURNAL is a welcome visitor. I do not see how I could get along without it. Long may it live!

L. REED.

Reed City, Mich., July 14, 1893.

The Value of Foundation, Etc.

Some do not know the value of foundation. It helps nearly two-thirds in building up, and in every country that I have been, I see no difference. I was brought up near Louisville, Ky. It works just the same there as here. I do not call myself an expert, but I read all that I can find, that says anything about bees, and I try to practice the best method that is adapted to the climate.

One thing, I do not see many that get any surplus when they want to rear queens in the spring. My plan is to put in a full sheet of foundation in the best hive, and when the eggs are hatched, I pick up the largest colony of bees in the yard, when they are flying well, putting a new hive on the old stand with only the brood in one frame, and that being the sheet of foundation that I first put in the best hive. Then I put a new sheet of foundation on each side of the brood, and put in 16 sections on the opposite side with starters. By the time the queen is hatched, they will have the sections filled; that is, up here.

McKinley, Mich. C. CRANK.

No Surplus—Few Swarms.

We have no surplus honey up to this time, and but few swarms.

W. E. BURNETT.

Harrisburg, Ills., July 1893.

Not a True Prophet.

I extracted some honey at one of my out-apiaries, and found it to be pure linden. Now, where did it come from? Sam Wilson said the bloom would not furnish nectar here, and the bees are two miles from any linden. My home apiary is surrounded with linden, and the bees are gathering linden honey very fast from "prairie grass," to use the prophet's assertion. Oh, yes, white clover and linden would be almost a total failure in this part of Iowa! Rats!

THOS. JOHNSON.

Coon Rapids, Iowa, July 11, 1893.

Remedies for Bee-Stings and Worms.

The best remedy for bee-stings is strong tincture of "lobelia inflalla." I have a bottle of it, and when a bee dabs me, I dab the place with the lobelia, by turning up the bottle on the place stung, and that ends it.

Mr. Daniel Sprague (see page 24) asks for a remedy for worms on leaves. Take a common wooden bucketful of water and add thereto three table-spoonfuls of Chloro-Naphtholeum. It will kill all and any kinds of worm or caterpillar. Just sprinkle a little on the worms.

EDWARD S. POPE.

Indianapolis, Ind.

Great Loss in Springing Bees.

The summer of 1892 was a poor honey season. Last November we put 104 colonies into the cellar, and the wintering was all right, with small loss. On April 10th, a fine day, they were given liberty, and had a good time. As soon as possible all were looked through, plenty of nice honey given them, and the entrances closed except a little room to fly through. So far, all right. But, alas! seven weeks of cold wind and rain left us with only 44 colonies, and half weak at that; but they are doing nicely now. The clover is good, and basswood is just coming. Hurrah, now! With a loss of two-thirds of all the bees, the bee-keepers will try to get their empty hives filled.

O. E. CLARK.

Brillion, Wis., July 17, 1893.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal......	$1 00....	
and Gleanings in Bee-Culture....	2 00....	1 75
Bee-Keepers' Review........	2 00....	1 75
The Apiculturist.............	1 75....	1 65
American Bee-Keeper.......	1 50....	1 40
Canadian Bee Journal.......	2 00 ...	1 75
Nebraska Bee-Keeper.......	1 50....	1 35
The 7 above-named papers	5 75....	5 00
and Langstroth Revised (Dadant)	2 40....	2 25
Cook's Manual of the Apiary	2 00....	1 75
Doolittle on Queen-Rearing.	2 00....	1 65
Bees and Honey (Newman)..	2 00....	1 65
Advanced Bee-Culture......	1 50....	1 35
Dzierzon's Bee-Book (cloth).	2 25....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
A Year Among the Bees	1 50....	1 35
Convention Hand-Book......	1 25....	1 15
Illustrated Home Journal..	1 50....	1 35

The World's Fair Women "Souvenir" is the daintiest and prettiest book issued in connection with the World's Fair. It is by Josephine D. Hill—a noted society lady of the West—and contains superb full-page portraits and sketches of 31 of the World's Fair women and wives of prominent officials connected with the great Fair. It is printed on enameled paper, with half-tone engravings, bound in leatherette. We will send it postpaid for 60 cents, or give it for *two* new subscribers to the BEE JOURNAL at $1.00 each.

Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the BEE JOURNAL for one year, for $1.15.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

"Bees and Honey"—page 99.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, July 22, 1893:

CHICAGO, ILL.—We quote fancy new honey at 18c.; No. 2, at 16c.; amber, 15c. Beeswax, 22@25c. We have had some shipments of fancy new stock which sold at once. J. A. L.

CHICAGO, ILL.—There is not much movement in comb honey. Prices range at from 12@16 and 17c., all good grades bringing 15@17c. A few cases of the new crop have arrived and brought the top prices. Beeswax is very steady at about 25c. Extracted honey is moving very slowly at from 6@8c.
R. A. B. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.
Beeswax—20@23c. C.-M. C. C.

CINCINNATI, O.—Trade is dull in all its branches, with a fair demand for extracted honey at 5@8c. Prices for comb honey are nominal, with no choice honey on the market.
Beeswax—Demand fair, at 20@23c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—No comb honey on the market. New crop extracted is now arriving freely from California and the South, and the market is well stocked. Trade is quiet, demand light, and prices have a downward tendency. We quote—Southern, common to fair, 60@65c. per gal.; choice, 70@75c. per gallon. California, 6@6½c. per lb.
Beeswax—25½@27c. H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality, 1-lbs. Beeswax is neglected at 22@23c. S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 6@7c. No beeswax on the market. H. & B.

BOSTON, MASS.—Honey is selling slow and prices are lower. Best 1-lb. comb, 16@17c.—Extracted, 8@10c.
Beeswax—None on hand. B. & R.

ALBANY, N. Y.—Our honey market is dull at present. There are some receipts of new extracted, but no reliable price established yet. Beeswax is more plenty, at 27@28c. for good color. H. R. W.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white conb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. Burnett & Co., 161 South Water Street.

New York, N. Y.
F. I. Sage & Son, 183 Reade Street.
Hildreth Bros. & Segelken, 28 & 30 West Broadway.
Chas. Israel & Bros., 110 Hudson St.

San Francisco, Calif.
Schacht, Lemcke & Steiner, 10 Drumm St.

Minneapolis, Minn.
J. A. Shea & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.
Hamblin & Bearss, 514 Walnut Street.
Clemoms-Mason Com. Co., 521 Walnut St.

Albany, N. Y.
H. R. Wright, 326 & 328 Broadway

Hamilton, Ills.
Chas. Dadant & Son.

Cincinnati, Ohio.
C. F. Muth & Son, cor. Freeman & Central avs.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE — High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

WANTED—A good girl to do general house work in a family of four persons, two being children. A Methodist (or protestant) preferred. Reference—George W. York & Co.
Address, MORTON J. DATE,
3Atf 189 Washington St., Chicago, Ill.

Advertisements.

Head-Quarters in the South

—FOR—

BEE-KEEPERS' SUPPLIES, ITALIAN

BEES AND QUEENS.

Send for Catalogue of our Prices.
The Oldest Queen-Breeders in the South.

P. L. VIALLON MFG. CO.,
BAYOU GOULA, LA.
Mention the American Bee Journal.

FINE ITALIAN QUEENS

Untested, 75c. each; 6 for $4.00; 12 for $7.00. All over 12, reduced rates. Tested, $1.50.
Send me your orders and I will try my best to please you. Address all orders to,

C. F. BECKEY,
4A MANITOU BEACH, Lenawee Co., MICH.
Mention the American Bee Journal.

—CROSSMAN HAS THEM—

Those Beautiful Golden Queens

Reared from the best 5-Banded stock. **Unexcelled for Business, Beauty and Gentleness. Satisfaction guaranteed.**
Warranted Queens, after June 1, 90c. each; $9.00 per doz. Tested, $1.50 each: Sec. Test., $2.50. Safe arrival insured. Send for Circular.

W. P. CROSSMAN, Ballinger, Tex.
8A26t *Mention the American Bee Journal.*

QUEENS AT COST,

At the following prices, sent by return mail, or money refunded:

1 Untested Queen	$ 65
6 " "	3 50
1 Tested Queen	1 25

Imported and Best Breeding Queens, also Large Orders, quoted on application. Each Race is bred in a separate apiary near no other bees. **Descriptive Price-List Free.**

Address. **F. A. LOCKHART & CO.,**
4Etf LAKE GEORGE, N. Y.
Mention the American Bee Journal.

HONEY AS FOOD ✻ ✻ and MEDICINE.

THIS is a little 32-page pamphlet that is just the thing needed to create a **demand** for HONEY at home. Honey-producers should scatter it freely, as it shows the valuable uses of Honey for Food as well as for Medicine. It contains recipes for making Honey-Cakes, Cookies, Puddings, Foam, Wines etc. It is intended for consumers, and will be a great help in popularizing honey among the people everywhere, if the pamphlet is liberally distributed.

Prices, prepaid—Single copy, 5 cts.; 10 copies, 35 cts.; 50 for $1.50; 100 for $2.50; 250 for $5.50; 500 for $10.00; or 1000 for $15.00.

When 250 or more are ordered, we will print the bee-keeper's card (free of cost) on the front cover page. Address,

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

READERS **Of this Journal who write to any of our advertisers, either in ordering, or asking about the Goods offered, will please state that they saw the Advertisement in this paper.**

ESTABLISHED IN 1861

THE AMERICAN

OLDEST BEE-PAPER IN AMERICA

BEE JOURNAL

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., AUG. 3, 1893. NO. 5.

EDITORIAL BUZZINGS

W. M. Barnum, now of Denver, Colo., formerly of New York, is associate editor of the *Colorado Magazine*, an elegant monthly published in Denver. We wish Bro. Barnum a large measure of success in his new position.

◆

The Canadian Bee Journal has been purchased by the Goold, Shapley & Muir Co., of Brantford, Ont., and will be published as a monthly by them hereafter. Mr. R. F. Holtermann is to have editorial management of the paper, and contemplates enlarging and improving it consideerably. We wish the new publishers and our new brother editor much success in their undertaking, and trust that their every anticipation may be fully realized.

◆

Prof. Cook, who has for so many years done such valuable work at the Michigan Agricultural College, is to go to Pomona College, in California, next November, we understand. By reason of his "Manual of the Apiary," and various other scientific and practical writings upon the subject of bee-keeping during the past years, Prof. Cook has endeared himself to apiculture everywhere. California can't have him all to herself, no matter how hard she may try.

Keeping the Grass Down in the apiary is often quite a task, but a Mr. Burt, of Ohio, uses sheep for the purpose instead of a lawn-mower. Simple enough, and wouldn't work the bee-keeper very hard, either. It beats all how many of the most valuable helps in bee-keeping, or in any other industry, are simple. When told of them, we often exclaim, "Why didn't we think of that? How easy and simple!"

◆

Rambler, of California, reports having taken 10 tons of honey, and expected more. It looks now as if Rambler is going to try to keep sweet entirely without the help of a sweet-heart. It's just too bad that he should miss so much of bliss, by persisting in existing in "single miserableness"—not "single blessedness," as commonly written.

◆

Loose Bottom-Boards to hives are preferred by Bro. Hutchinson. And he is not alone in this preference, as was shown by the replies to Query 865, on page 429 of the BEE JOURNAL for April 6, 1893.

◆

To Illinois Bee-Keepers.—We have received the following important letter from Bro. Hambaugh, and we hope that the bee-keepers of Illinois will not only read it, but will immediately act upon the suggestions made therein, so that the Illinois apiarian exhibit at the World's Fair may be completed at once, and in a creditable manner:

> It is very important that all parties who desire to make an exhibit of honey and beeswax at the World's Columbian Exposition, be as expeditious as they can in its preparation, and ship at the very earliest

date possible, to your executive officers. Bear in mind the time is limited to Aug. 15th for receiving all light grades of honey. Buckwheat and all dark grades are limited to Sept. 1st. The cases will be ready in a few days, and all exhibits will be mounted at once.

Should you desire to be further informed, please send for Circular, which will give all necessary information. Should any readers of this know of any select and choice lots of honey, they will confer a favor by at once informing us.

Let us once more appeal to your patriotism and State pride, by asking your earnest co-operation in this great work. We desire an exhibit in keeping with the occasion, and an honor to our State and industry.

Yours truly,
J. M. HAMBAUGH,
Agricultural Building, Chicago, Ills.
Care Hon. W. I. Buchanan.

◆

Experimental Apiculture is to be the "special topic" for discussion in the August *Bee-Keepers' Review*. In his introductory editorial on the subject in the July *Review*, Bro. Hutchinson makes some *good* suggestions, which, by the way, is just what he is in the habit of doing now-a-days. Next week we will have something to say upon the subject, as Bro. H. asks for what "others think."

◆

The California Honey Crop.—From reports published in California papers, it appears that the honey crop in that State is not a large one, by any means. In some places a very large crop has been obtained; in others, the yield has been anything but satisfactory to the apiarist.

The season was good at the beginning, as the rainfall was propitious, and with the right climatic conditions during the inflorescence of the honey-yielding plants, the crop would have been up or above the average. But the climate of California is not to be relied upon in all things. It has a peculiar way of disappointing one in regard to the way it will act, about the time of harvesting a crop. It is true that it does not get furious as the climate of the Eastern States does at times, and go off on a "big tear" to paint towns and everything else in its track "red;" but it will sometimes just dry things up a little too quickly. This is one of the reasons why honey is so apt to be not forthcoming at times in that State.

A Ventura paper reports that M. H. Mendleson had extracted 30 tons up to the time of its report. This may be said to be a large yield, though it is not. This apiarist, like Mr. J. F. McIntyre, was a pupil in the school of apiculture with that pioneer California bee-keeper, Mr. R. Wilkin, and, like Mr. McIntyre, he keeps bees on a big scale, and gets big results from them when such results are to be expected.

Some of the bee-keepers of San Bernardino and Riverside counties, we understand, have obtained fair yields. These, as well as that above referred to, may be considered no better than a half-crop. In fact, the yield of the whole State will be not above a half-crop. And yet the dealers are offering but five cents, or less, per pound. The great majority of apiarists are holding out for six cents, and it is probable they will get it if they can hold out long enough. Those who have the money, or can easily borrow it, can do so, while those who cannot, will, like the poor farmer, be obliged to sell at a sacrifice.

◆

Baby Fern's picture has been sent to us by her papa, Bro. Hutchinson. It represents her seated in her pretty carriage, and looking as if she were queen of all she surveyed—and we presume she is. Thanks, Bro. H., for your thoughtfulness in sending the picture, which we presume is intended as a "slight hint"—one of the results of our remarks on page 40 about the "baby carriage." We shall think lots of Baby Fern's picture, "allee samee."

◆

The Rules and Regulations we have received for the Scottish Bee-Keepers' Association's summer show of bees, honey, and hives, to be held in Dean Park, Edinburgh, in connection with the Highland and Agricultural Society's Show, on July 25th to 28th, inclusive. Also the Prize List on bee-appliances, honey, wax, etc., forms a portion of the circular.

◆

The Langdon Non-Swarmer, so far as we have heard reports, is not proving all that was hoped for from it. Perhaps Mr. Langdon will now be able to improve it still more, so that by another season it will work successfully in the majority of cases. It no doubt is worth attempting, at any rate.

◆

"Bees and Honey"—see page 131.

A Phenomenal Honey-Year, so far, is what Bro. E. R. Root called 1893, in *Gleanings* for July 15th. In commenting upon the reports of the honey crop that he has received, Bro. Root says:

> Never, since we have had charge of the editorial management of *Gleanings* so far as it relates to bees, have we read so many reports showing phenomenal honey-flows. Why, if you look over our shoulder, as the letters come in day by day, you would think that a veritable and prolonged honey-shower had struck the country; and the end is not yet. The season with us commenced about three weeks ago, and the bees are still working on clover, and basswood is just beginning to open up. This state of affairs seems to be existing in nearly all of the Northern and Middle States, from ocean to ocean. Yes, the California crop is going to be good, too. More than all this, the crop, besides being unusually large, is remarkably choice. All samples that have been coming in were of about one grade—extra nice; and the producers, almost with one accord, write that they have tons and tons of that kind of honey.

Our reports have not been so uniformly good, but, in the main, we should judge that the crop of honey this year will be quite satisfactory. In such a large country as the United States, we are not surprised that in some localities there should be a failure of the honey crop. We hope, however, that by the time snow flies again, every part of our land may be able to report at least a fair yield.

The New York Honey Exhibit at the World's Fair is one of the great, big attractions in the Agricultural Building. It occupies a floor space approximately 30x50 feet.

The display is in two exhibition cases each 25 feet long, 11 feet high, and 5 feet wide; two cases each 10 feet long, 11 feet high, and 5 feet wide; and one case 18 feet long, 11 feet high, and 5 feet wide. The last case is devoted to the exhibition of bees. The aggregate length of the exhibition cases is therefore 88 feet.

The floor of the cases is 2½ feet from the floor of the gallery upon which the cases rest, and the ornamentation around the top of the cases is 1½ feet high. The inside dimensions of the cases are, therefore, 7 feet high by 4⅓ feet wide, and the lengths as before given.

The exhibit consists of about 5,000 pounds of comb honey, and about 3,000 pounds of extracted. The bulk is linden and clover, and smaller exhibits of honey from buckwheat, fruit-bloom, golden-rod, aster, sumac, heart's-ease, raspberry, mustard, sweet clover and boneset.

This enormous exhibit of beautiful honey occupies 3½ times the space taken by the display of any other State or foreign exhibit, and New York has on exhibition more than ten times as much comb honey of the finest quality as any other State or foreign exhibit; and three times as much comb honey as is contained in all the other exhibits combined. The comb honey was kept over winter with great care, in a steam-heated room where the mercury never went below 50 degrees.

Mr. O. L. Hershiser, the energetic Superintendent of the New York bee and honey exhibit, has, with the aid of the bee-keepers of that State, made an effort to bring out an exhibit that will be a credit to all bee-keepers, and one for which New York apiarists need offer no apology. It is, indeed, a very comprehensive exhibit, and a surprise to those visitors that are not familiar with the extent and importance of bee-culture.

Among the exhibitors and exhibits are the following:

Mr. G. M. Doolittle, of Borodino—Two colonies of leather-colored bees, and one colony of yellow Italians. One of these colonies contains a very valuable queen, which, Mr. Doolittle informed Mr. Hershiser, was worth $50 to any good apiarist, for a breeder. Mr. Hershiser intends to rear a few queens from her at the Fair, and send them out while virgins, in order that her progeny may be perpetuated, in a small way, at least.

Mr. Hershiser's own exhibit consists of a practical apiary of working bees, and honey produced by the same. He has already taken off quite a quantity of comb honey—probably the first that has ever been actually harvested at any Fair.

John Andrews, of Patten's Mills—Three nuclei of Carniolan bees.

John Woolf and Asa Saunders, of Big Tree—One colony each of black bees.

Mrs. M. L. Berry—Artistic wax-work—sea-shells made by her from wax produced by her own bees.

J. Van Deusen & Sons, of Sprout Brook—Flat-bottom comb foundation, and specimens showing the readiness with which bees accept it.

The W. T. Falconer Mfg. Co., of Jamestown—Bee-keepers supplies, a large variety.

Margaret M. Penton, of East Aurora—Honey-producing flora of New York.

H. P. Langdon, of East Constable—Langdon non-swarming attachment, besides honey.

C. V. Lindsey, of Attica—98½ pounds of honey, the product of one colony. Also 50 pounds of extracted.

Julius Hoffman, of Canajoharie—Honey pastry, honey-vinegar, metheglin, pickles made with honey-vinegar, honey cough syrup, honey soap, and salve made of beeswax; besides honey.

J. O. Munson, of East Lansing—Beeswax and an old-fashioned straw hive; besides honey.

Sidney S. Sleeper, of Holland—Samples of clover, linden, dandelion, mustard, golden-rod and buckwheat honey.

The following list of New York bee-keepers are each represented by 100 pounds of comb honey and 50 pounds of extracted honey:

Miss E. Andrews, Coventryville.
Geo. W. Bailey & Son, Ovid.
C. J. Baldridge, Kendaia.
Mrs. Marion B. Bishop, Amber.
W. V. Bosworth, Clockville.
Edgar Briggs, Manchester Bridge.
M. J. Bundy, Angola.
D. H. Coggshall, West Groton.
B. A. Crosby, Sardinia.
H. N. Davis, Deansville.
Jay Dimick, Rices.
Chas. F. Dodd, Hobart.
W. H. J. Drew, Chateaugay Lake.
P. H. Elwood, Starkville.
Fred H. Fargo. Batavia.
John G. Faulkner, Mumford.
Mrs. Chas. Faville, Holland.
C. G. Ferris, Columbia.
Geo. L. Ferris, Atwater.
Martin G. Garrett, Coeyman's Hollow.
Friedemam Greiner, Naples.
N. Hawkins, Gowanda.
Fred Hazelton, Le Roy.
Miss Satie Heath, Chittenango.
John E. Hetherington, Cherry Valley.
Julius Hoffman, Canajoharie.
Edwin H. Hutchins, Westville Centre.
F. C. Hutchins, Masena Springs.
Mrs. Helen L. Ivory, Smithville.
Fay Kennel, Rochester.
Geo. Lamoreaux, North Hector.
H. P. Langdon, East Constable.
E. R. Magoon, Malone.
Wm. P. Makeley, Medusa.
W. N. Miller, DeKalb.
J. O. Munson, East Lansing.
F. A. Phipps, Short Tract.
Lyman Riede, West Winfield.
I. L. Scofield, Chenango Bridge.
Sidney S. Sleeper, Holland.
Albert Snell, Clayton.
Robt. A. Weir, Clayburgh.
Le Roy Whitford, Stow.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported	$7 75
Essie Cheesman, Judah, Ark	25
Joseph Webber, Hanson, O	25
Bee-Keeper, Orinah, Wis	25
A Friend, Erna, Iowa	25
Total	$8 75

"The Winter Problem in Bee-Keeping" is the title of a splendid pamphlet by Mr. G. R. Pierce, of Iowa, a bee-keeper of 26 years' experience. It is 6x9 inches in size, has 76 pages and is a clear exposition of the conditions essential to success in the winter and spring management of the apiary. Price, postpaid, 50 cents; or given as a premium for getting one new subscriber to the BEE JOURNAL for a year. Clubbed with the BEE JOURNAL one year for $1.30. Send to us for a copy.

"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the BEE JOURNAL for one year, for $1.70.

Have You Read that wonderful book Premium offer on page 131?

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

They Swarmed and Swarmed.

Although I have handled bees for several years, I still consider myself quite a novice in the business. I actually thought (until the other day) that when a colony once swarmed, and got through with it and settled down to work, they were done for that season. I have a colony that swarmed on April 30th; that swarm cast a swarm on June 2nd, and the parent colony swarmed again on June 15th. Is this unusual or not?

This has been a fine honey season so far, but at present it is getting very dry, and unless it rains soon, it will close the season until the fall flowers bloom. I am using a Langdon non-swarmer, and believe it is going to be a success.

F. T. BROOKE.

Brookewood, Va., July 14, 1893.

ANSWER.—Cases like the one you mention are not very common, and as a general rule when a colony gets through one siege of swarming it can be counted on to behave itself for the rest of the season. Still, "virgin swarms" and "buckwheat swarms" are known to most bee-keepers, and are more likely to occur, as in your case, where the first swarm comes off early in the season.

Partly Capped Sections of Honey, Etc.

1. Will you tell me what to do with partly capped and uncapped honey at the end of the season?

2. At what time is there more honey and less brood in the brood-frames?

WALTER R. WOOD.

Bellevue, Del.

ANSWERS.—1. Like any other marketable article, it pays to sort honey. A few sections partly finished mixed in with a nice lot will hurt the sale of the whole. So don't let anything get into your first-class honey that isn't strictly first-class.

That which lacks a very little of being finished can be sorted into a lot by itself, and sold for a lower price. Your home market may take a good deal of such honey, and it depends upon the price you can get for it, how close you should sort this lot. In some places there is fair sale for sections that are less than half filled. Some prefer to sell them at a very low price, for the sake of getting rid of any further trouble with them.

There are two ways to proceed with those unfinished sections that you do not want to sell. One way is to extract the honey out of them, the other is to let the bees rob it out. In either case let the bees do the finishing, for a section is not fit to be used the following season that has not been thoroughly cleaned out by the bees. Pile the supers of sections where the bees can get at them, protecting them from the rain, and allowing entrance for only one or two bees at a time. If you allow the bees free access by a large entrance, you will very likely find the sections torn to pieces by the bees.

If your unfinished sections have been kept nice and clean, and have been thoroughly cleaned out by the bees, they will be valuable for "bait" next season. Indeed, if you have enough of them for your whole crop, your crop should be larger, on the same principle that you can get more extracted than comb honey. B. Taylor has devised the "handy comb-leveler," that makes excellent work leveling unfinished sections, and removing anything objectionable on the edges of the cells.

2. At the close of the honey harvest.

Many Eggs in One Cell.

I send you a piece of brood-comb with eggs. Did you ever see a queen so prolific? I believe there are two in the hive. They seem to vie with each other to see which can lay the most eggs in one cell. Why don't all eggs hatch? You will notice ten eggs in some cells, from regular size down to small particles. Now, how can I dispose of this nonsense? I can't find the queen—I suppose it is a laying-worker. The bees are trying to supersede her. I will watch that queen-cell, and see how his droneship gets along.

J. C. WALLENMEYER.

Evansville, Ind.

ANSWER.—So far as we know, no one has ever given a reason why all the eggs do not hatch when a dozen or so are laid in a cell. Simmins, a prominent British bee-keeper, says that the eggs will not hatch until the workers surround them with the milky fluid that serves as food. If that be correct, then it may be that the failure on the part of the workers to supply all the eggs with the needed nourishment may be the cause of their failure to hatch. But that would leave unanswered the question as to why the workers thus discriminate.

A satisfactory way to deal with the case is to break up the colony, distributing the combs and bees among weaklings that may need them. If you do not want to break up the colony, perhaps there is no better way than to drop into the brood-nest a young queen, just hatched. If you have no such young queen, you can give them a comb of young brood and eggs, and they may rear a queen ; but you can hasten matters by giving them a just-hatched queen as soon as you can, or a sealed queen-cell.

Queen and Worker in the Same Cell.

I send you two bees—a queen and a worker—both of which were taken from the same cell yesterday (July 17th). Both were dead when the cell was opened. Why should one develop a queen and the other a worker ?

Cobham, Pa. D. L. McKean.

Answer.—If you rear many queens you will quite frequently find a queen-cell containing nothing but a dead worker. The bees seem inclined to play practical jokes on one another, and, like most practical jokes, they result rather seriously. A queen hatches out of a cell leaving the usual cap attached by a kind of hinge ; a worker enters the cell, probably to clean it out ; the cap becomes closed, either by accident or design, and the cell is again sealed up.

But a worker and queen both in the same cell is something unusual, and we can only make a guess at the way in which it occurred. Our guess is this : The queen came to maturity, gnawed the cell open, was then allowed to starve to death in the cell, and afterward a worker entered and was sealed up with the dead queen. Possibly some one can give a better explanation.

Shade or Sunshine for Bees.

I have an equal number of colonies in two places. In one place they are in a shady grove, and in the other the hives are exposed to the sun. The latter have twice the young swarms. Is the shade or sunshine preferable ?

Marion, Ind. John Ratliff.

Answer.—Your question partly answers itself. If you want bees to do as yours do that are in the sun, then put them in the sun. If you want them to do like those in the shade, then put them in the shade. In other words, there seems to be more swarming in the sun, and if you want swarms let them be in the sun, and if you want to keep down swarming, let them stand in the shade. On general principles, we should prefer to have them in the grove. While it is not best to follow nature always, it is generally well to do so when there seems no reason for acting to the contrary, and bees seeking their own location seem to choose the shade.

However, if some kind of a shade is put over each hive, such as a broad-board or boards projecting on the south side, bees are all right in the sun. But for the comfort of the operator, the shade is decidedly preferable.

BIOGRAPHICAL

MR. H. D. CUTTING.

Again we have the pleasure to present to our readers the picture and biography of another of Michigan's loved and honored apiarian sons. Mr. Cutting is already too well known to need extended introduction from us, but we will simply say that we most heartily second all that is said of him in the following interesting sketch, which was written by Prof. Cook for *Gleanings* of Aug. 1, 1890 :

I am requested to give a brief account of Mr. H. D. Cutting's work in connection with apiculture in Michigan. Although I am very much occupied at present, my friendship for Mr. Cutting, my appreciation of his valuable services, my knowledge of his enthusiastic work, and my desire that earnest, faithful, telling effort may be recognized, all make me more than willing to undertake the pleasant duty, even though, in the hurry of the season, I may fail to do justice to Mr. Cutting and his valuable services.

A word regarding Mr. Cutting as a man is necessary to understand his exceptional success. He is always a gentleman, and so wins the regard and confidence of those he may wish to influence. His pleasing address adds further to his power of persuasion. Most of all he believes in his cause, and so acts with an energy and enthusiasm that attracts, then interests and at last persuades. Lastly, he thoroughly studies any enterprise in which he engages, and so becomes a master, a leader as well. So in his work he never says "Go," but, rather, "Come on, boys."

H. D. CUTTING.

In two capacities Mr. Cutting has shown signal ability in connection with Michigan apiculture ; has wielded exceptional influence, and has achieved brilliant results. I refer to his position as Secretary of the State society, which I think he has held since 1881, and his valuable service in connection with the State Fair, where, owing mainly to his efforts, the premium list has advanced from $5.00 to over $300, which, if I am not mistaken, is the largest and most generous offered in the United States.

Our State society stood high when Secretary Cutting assumed the duties of Secretary. We had previously had the benefit of such wide-awake, capable officers as Bingham, Heddon, Benton, etc., and so it was no easy task to keep the interest and work up to the high-tide mark, especially during the discouraging seasons that have marked about a third of Mr. Cutting's term of office. Yet Mr. Cutting has more than achieved that distinction. While I would not say that the interest and profit at some of the old first meetings, with Moon and Rood, Postman, etc., on deck, were ever surpassed—those old meetings were delightful—I will say that, for the whole period together, the past nine years have stood at the front. The programmes, general spirit of the meetings, and valuable results achieved, have been most admirable, as many can attest ; and for all this, Secretary H. D. Cutting should have chief praise.

Nor has Mr. Cutting's record been any less bright in relation to our honey exhibit at the State Fair. In the old time, honey was sandwiched in between butter and vinegar, with somewhere about $5 offered for premiums. Mr. Cutting appealed, on behalf of the bee-keepers, to the authorities. His petitiom was listened to and granted, and now Michigan has a special building devoted to the apiary, and offers premiums to the amount of $300. For nearly all of this we are indebted to Mr. Cutting. Nor did he stop there. The revised list once adopted, Mr. Cutting went to work with all his energy and zeal and secured an exhibit worthy a special building and a generous premium list. Few exhibitions compare with the honey-shows of Michigan in quality of exhibits and neatness of display. For all this Mr. Cutting should have chiefest praise, with Mr. W. Z. Hutchinson as a near second.

Not only is Mr. Cutting praiseworthy for his energy and enthusiasm, which have accomplished so much, but he is remarkable for his modesty and reserve. He never pushes himself to the front, but is always urging others to places of honor and responsibility. While he never pushes himself for position, he always gives most efficient service when called upon to act. Michigan bee-keepers can never be too grateful for the valuable work that he has wrought in our State. A. J. Cook.

To the foregoing worthy estimate of Bro. Cutting and his services to bee-culture, Bro. Root added these paragraphs:

In addition to the well-written sketch above of Mr. Cutting's career as a honey exhibitor, and of his services in connection with bee-associations, we would add that our friend was born in Hudson, Columbia county, N. Y., July 22, 1842. He attended school and worked in a printing-office until Sept. 9, 1858, when he removed to Michigan. He began working for the Michigan Southern & Northern Indiana railroad, now known as the L. S. & M. S., in the capacity of a baggage-man. In 1861 he left this position and went into the army. In the spring of 1863 he commenced work at Newburg, N. Y., building marine and stationary engines. He was married to Miss Frances Gardner Sept. 27, 1865. He now has a family of seven children—four boys and three girls. In 1867 he removed to Clinton, Mich., and started a machine shop of his own, and he has been engaged in building machinery ever since.

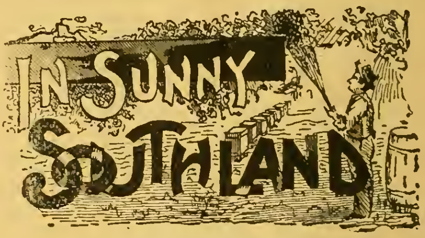
He has been interested in bees for a good many years, and commenced the business in 1866. He has not been a prolific writer, but, as will be seen by Prof. Cook's sketch, he has rendered valuable service to bee-keepers, particularly those of Michigan. He was President of the Southeastern Bee-Keepers' Association, also President of the North American Bee-Keepers' Association for 1886, and is now Superintendent of the Bee and Honey Department of the Detroit Exposition. He has acted as an expert judge of bees, honey, and supplies, at many of the largest exhibitions. Besides bees, Mr. Cutting is interested in poultry and small fruits. He is also a student of the microscope, and finds great pleasure in all these pastimes. He is strongly opposed to the use of intoxicants and tobacco, and so far none of his children use them. So much for a good example.

Friend Cutting paid us a visit a short time ago, and we found that he was not only enthusiastic on bees and everything connected with the industry, but he enjoyed intensely talking about machines and machinery. He is a very fine mechanic, and has a splendid knowledge of almost everything connected with his trade.

Though much more might be written of Bro. Cutting, we will only say that he sold out his home apiary at Clinton to go as General Manager and Superintendent of a large Chemical Fire Engine Company. After selling out he declined to go. He is now looking for a location to start a bee and poultry farm in connection with fruits, for he is one of the men that believe in some variety in their work.

Bro. Cutting, as previously announced, was appointed to take charge of Michigan's honey exhibit at the World's Fair, and is at this very time putting up the display. He is a hard worker, and judging from Prof. Cook's description of him as a hustler at Fairs, we may look for something pretty fine in the apiarian exhibit of Michigan at the World's Fair.

As a concluding remark, we may say of Bro. Cutting that he is a man who believes in "Up with the right; down with the wrong!"



CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

No. 5.—Texas and Her Resources.

(Continued from page 110.)

Game is plentiful in some counties of southwest Texas, and all lovers of fish should live here, as fish abound in great profusion. Then those that love nature should live in this country. Its grand scenery, its mountains and valleys, its vast prairies, dotted here and there with small clusters of timber, and the level prairies are usually covered about as thickly with mesquite timber as a peach orchard, which it very much resembles, and blooms out after every rain in spring and summer, furnishing a new crop of bloom for the bees to feast upon, and making an almost continuous honey-flow through spring and summer.

Then to call a few of the most noted peaks by name will give you a better idea of the scenery. There is Bachelor's Peak mountain up 100 feet above the land below, on which a derrick is built to view the country with a telescope. There are many other mountains that I might mention where it is a grand place to seek a week or two of rest and recreation, and a real lover of nature is filled with admiration and astonishment from day to day, while exploring these wonders of nature; and, in fact, the country abounds with attractive resorts from sea shore to the pine-clad forests of the eastern portion of the State. At most places comfortable hotels are built, and well filled most of the year with health and pleasure seekers from all parts of the country.

Schools, colleges, and churches of all varieties are numerous, and the societies in Texas are *first-class.* Rates of living here are as cheap as anywhere in the world that I know of, as we can raise nearly everything we want to eat. We have the most generous and free-hearted people here of anywhere, I reckon. Let a paper be circulated stating that somebody is in need and suffering, and just see how quickly a sufficient amount is raised to relieve the sufferers. Then the privileges that young people have here to attend respectable societies—one I will name is the Young Men's Christian Association.

Improved farming lands can be bought at from $3 to $10 per acre, and in most counties school lands can be had at $2.50 per acre, on 30 years time. Then the prosperous people here all work unanimously together. You can often see, by traveling over the country, husband and wife together in the fields, and wife will leave the field in time to go and prepare the meal; then the husband will help to clean the house, wash dishes, etc.; and often the women may be seen chopping wood, and relieving the husband of part of the hardships. Then they hitch up their fine steeds in fine family hacks and carriages, and ride out together to church on Sundays. No longer ago than yesterday I met a lady that lives 12 miles from Greenville, that had taken her horses and hack, and a little boy too small to work on the farm, and came in with a load of fruit, and peddled it out around town taking in $12 to $15, and purchasing necessaries, such as sugar and coffee, and clothing, while the husband pushed the farm work right on. Visit these people when you may, and they are well fixed.

Now, dear friends, if you have read all this hasty "write up," and see any place where you would like to ask a question, just come ahead, and I will answer through the AMERICAN BEE JOURNAL, as our busiest season will now soon be over, and I will have more time.

With this brief history, very hastily prepared, I will bid you good-bye for the present. JENNIE ATCHLEY.

Too Dry for Bees—No Honey.

MRS. ATCHLEY:—Our bees have done no good in this section this season. It has been rather too dry. Bees are very light, and the prospects are very poor for a honey crop at this time. Unless we get plenty of rain soon, we will not only have no honey, but we will have no bees. J. L. BOWDISH.

Oxford, Kans., July 22, 1893.

QUERIES AND REPLIES

Keeping Bees on Top of a City House or Store.

Query 882.—1. What do you think of keeping bees on the top of a house or store in a city where land space is limited? 2. How would it be in a cold winter and a hot summer?—Reverend.

1. I never tried it. Ask Chas. F. Muth, of Cincinnati, O. He has so kept them for years.—G. M. DOOLLITLE.

1. Ask C. F. Muth, of Cincinnati, O. He has done this for 30 or 40 years with excellent success.—DADANT & SON.

1. I think it would be a fairly good place with a little extra care. Many succeed that way.—R. L. TAYLOR.

1. I have no experience, and would not favor the idea. 2. Pretty hard lives from personal experience.—R. F. HOLTERMANN.

1. I don't think I would like the location on top of a store. I would rather go two or three miles out in the country.—E. FRANCE.

1. It works well. 2. In winter, give some protection, and in summer you can screen from the hot rays of the sun.—J. P. H. BROWN.

1. I never have had any such experience. 2. They certainly would need protection from extremes of both heat and cold.—Mrs. J. N. Heater.

1. I'd keep them there if I had no better place. 2. I don't know that it would be much different from having them on the ground.—C. C. Miller.

1. You might be successful with a limited number of colonies. 2. They should be securely packed in winter, and well shaded in summer.—J. M. Hambaugh.

1. It has worked well in Cincinnati and New York. Why not elsewhere? 2. In cold weather carry them to the cellar; and if too hot, shade them.—A. J. Cook.

2. It can be done as easily as on the ground, if one has room. Shade can be provided in summer by boards, and they could be wintered in the cellar.—J. H. Larrabee.

1. I can think of no reason why they could not be provided for there as well as elsewhere. 2. And also protected from summer's heat and winter's cold.—Jas. A. Stone.

1. I think well of it. 2. The situation is all right in the summer, if the hives are shaded in the heat of the day. In winter the hives should be protected from the wind.—M. Mahin.

1. Ask C. F. Muth, or some one with practical experience. It may be best in some cases to put them up. 2. This depends upon the exposure and material of the roof.—P. H. Elwood.

1. Mr. Muth, of Cincinnati, O., has been quite successful with bees on the top of his store, and Dr. Parmly, in New York city. 2. As well as upon the ground.—Mrs. L. Harrison.

1. I think it practicable, if it is the best one can do. 2. On a house-top the sun is hot, but good air makes up the difference. I don't know how about wintering.—G. W. Demaree.

1. A limited number of bees may be kept very successfully under such circumstances. 2. With proper protection from the winter wind and the summer sun, it would be an excellent place.—James A. Green.

1. A few colonies might be kept for study or pleasure, but I should hardly think they would pay. 2. In summer they could be shaded; in winter they would go to the "eternal shades" in this climate. Cellar them.—Eugene Secor.

1. I would take the chance, if it was the best I could do. 2. Protect from frost and wind. You could pack them in chaff in winter, and protect somewhat from prevailing winds with board screens.—S. I. Freeborn.

Bees can be kept quite successfully on a house-top. The summer heat can be tempered by shade boards. If they must be wintered in the same place, they should be well packed with absorbing material.—C. H. Dibbern.

1. You had better counsel C. F. Muth, of Cincinnati, or A. J. King, formerly of New York. I have no experience along that line, but I would think you could keep a limited number of colonies on a house-top.—Mrs. Jennie Atchley.

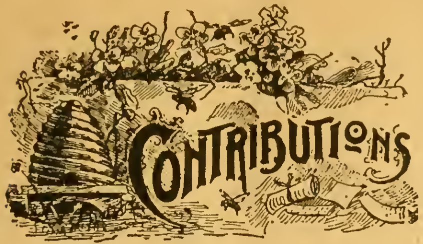
1. In all instances where I have seen it tried, it has been successful. 2. Your last question is too much for me. An article upon this subject from our genial German friend, Chas. F. Muth, would be interesting.—Will M. Barnum.

1. I have had no experience myself, but others have, and report good results. 2. So far as cold or heat is concerned, I don't think much, if any, difference will be found from keeping them on top of a house instead of on the ground below.—J. E. Pond.

1. I would not want them there, though it can be done. I visited Mr. King in New York city when he had 50 or 60 colonies on top of his store, and they seemed to be doing well. 2. Cold and hot, of course. The combs might melt down in the summer, if the hives were not protected. Bees do not freeze, however, if they have plenty of food in the right place.—Emerson T. Abbott.

Amerikanische Bienenzucht is the name of a bee-book printed in the German language, which we now have for sale. It is a hand-book on bee-keeping, giving the methods in use by the best American and German apiarists. Illustrated; 138 pages; price, postpaid, $1.00. It is just the book for our German bee-keepers. We club it with the Bee Journal for one year, for $1.75.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with Bee Journal one year, for $1.10.



Foul Brood—Further Information as to Treatment, Etc.

Written for the American Bee Journal

BY WM. M'EVOY.

I was greatly pleased when I read the editorial item on page 7 of the AMERICAN BEE JOURNAL of July 6th, and saw that advice to all bee-keepers to give my methods of curing foul brood a thorough trial, and then report results.

In my last article (see page 15) I said the dross from the wax-extractors *must be buried.* Since then Mr. Gemmill has written me, saying that I should have said the dross from a *solar* wax-extractor. He says the dross from foul-broody combs that were *boiled* would be all right, which is very true, and I am very thankful to Mr. Gemmill for noticing that I had not explained what I meant. I meant the dross from all steam wax-extractors, but forgot to say so, and explain why the dross from them must be buried.

If foul-broody combs are put in a steam wax-extractor, the honey will run out into the wax-pan, just as soon as the steam warms the honey in the combs, then as fast as the steam melts the combs the wax will run into the wax-pan.

The common practice with the most bee-keepers and their wives, after lifting out the wax to heat over and run into cakes, is to throw out the dross and honey that was in the bottom of the pans; if the bees get at such honey, and take it to their hives and feed it to the larvæ, *it will start foul brood at once with a vengeance*, because the honey got but very little heat that ran into the wax-pan.

I want to give a little advice to the farmers that have foul brood in their bee-yards.

If you have 10 or 15 colonies afflicted with foul brood, I want you to prepare things in good shape through the day, by putting the comb foundation starters in the frames, thus getting all things ready. Then go, about sundown, with a *good* smoker, *well going*, and blow smoke into the entrance of every hive near the ones you are going to remove the combs from and fix up. Then stand to one side, or the back of the hive, so the bees can see the entrance of their hive, and as soon as you have smoked the colony well, remove the combs and shake the bees right back into the *same hive*, and give them comb foundation starters, which you will remove the fourth evening, and give full sheets of comb foundation.

If no honey is being gathered by the bees at the time, *you must feed plenty of sugar syrup in the evenings, or your bees will swarm out and mix in with your sound colonies, and ruin them.* If you have no feeders, use small bread-pans, or anything of the kind. Pack them full of straw, then fill them full of sugar syrup, and put them on the frames *in the evenings*; by doing that the bees will rush into the feed, soon work out the starters, and store the foul honey in them that they took from the foul-broody combs when you removed them.

The fourth evening, when you go to remove these nice white combs (and see what a lot of combs the bees made in such a short time in the honey-flow, or by booming them with sugar syrup), don't leave them in, thinking it all right because they look so pretty. *You must remove these new combs that were built in the four days, because they will have the deadly honey in them*, and you must melt them into wax.

When you remove the old, foul combs, if they are very bad, make wax of them at once; but if your colonies have only a little foul brood in them, and a large quantity of good brood, you can make it pay to save it, if you are a careful man, by following the directions I gave in the BEE JOURNAL of July 6th.

Some of you will say, "I have no sugar. Can't I feed the honey from the foul combs if I heat it?" Yes, you can, if you will mind me; but I do hate to trust you, because I know how careless you are. If you are determined to feed that honey from the foul-broody combs, put about half water in it, and bring it to a *sharp boil* before you feed it. I never advise the feeding of foul honey, heated by men of no experience, because it is too deadly a thing for greenhorns to tamper with.

In localities where little or no honey is being gathered by the bees when they are put on foundation starters, they will in some cases swarm out if the queens are not caged. Cage all the queens, and keep them caged while on the starters, and for two days after they are put on the full sheets of foundation, to prevent swarming out; and feed an abundance in the evenings; by doing that, all will work like clock-work.

Now, farmers, I beg of you to mind me, and do not put off this work until some morning when your crops are so wet that you can't do anything else, and then go and stand with your two feet right in the front of the entrance to the hives, and then commence removing the combs and shaking part of the bees in the hive and the rest on the ground, thus causing the bees to mix into every colony in your bee-yard, to ruin all.

If you have the disease in 10 or 12 colonies, don't tinker with them and lose all by doing one or two in a week, and then in a week after doing two more, and then scatter the bees about so that they rush into the cured ones that you did the week before, and thus get the disease back into them again. Do the whole 10 or 12 in one evening. If you can't do that, don't be more than two evenings at a small lot like that.

Burn all frames as soon as you cut the combs out of them, because it won't pay you to waste valuable time in scalding and fussing with old, daubed frames, when nice new ones are so cheap. Make wax of the combs just as soon as you cut them out of the frames.

If your apiary is badly diseased, don't, under any consideration, save even one comb either in or out of your hives. Remember if you do, it will start the disease again.

Don't waste your time in boiling, scalding, or disinfecting any empty hive that had foul brood in it; the empty hives are perfectly safe to use in any way you wish without doing anything with them. I saved many wood-piles, and the people from a world of labor, by forbidding the boiling and the disinfecting of empty hives that foul brood had been in.

While on my rounds through Ontario the first summer, I found the bee-keepers everywhere ready, and very anxious, to boil and disinfect all empty hives that foul brood had been in. I could have very easily traded upon the ignorance of the people, by advising them to do so, which would have been a very unjust thing for me to do—to cause the bee-keepers a terrible lot more work, and waste their valuable time and wood-piles in boiling empty hives that foul brood had been in. I had not the heart to do it, and looked on it as little short of crime on my part, if I did not forbid it. I forbade it everywhere, and the people are loud in my praise for saving them from a lot of useless work. I always told the bee-keepers that there was no more reason for scalding empty hives than their was for scalding the bees that were full of the deadly honey when they were put into the hives after the rotten combs were removed.

I see by the American Bee Journal of July 13th, that Mr. Corneil is after Prof. Shaw with a sharp stick, because he gave me credit for both the discovery of the cause and cure of foul brood. Prof. Shaw is right, and I do positively declare that the so-called scientists don't know to-day the true cause of foul brood, and I must rule them all out, and Mr. Corneil along with them. I was the first to discover the *true cause, the real cause, the whole cause; the whole, sole, real and only cause of foul brood.* I don't like it one bit, in Mr. Corneil trying to take that from me, and give it to professional guessers. I discovered the true cause of foul brood in 1875, and in the American Bee Journal of May 11, 1893, I gave my discovery, and the discoveries of other good and truthful men. I ask it as a favor of all who have the Bee Journal of May 11th, to read the *strong chain of evidence which no living man can dispute, that I gave there.* I was the first man in the world to discover the real cause of foul brood, and I feel awfully annoyed to see Mr. Corneil trying to take it from me.

If every bee-keeper took proper care of his bees, and kept rotten brood out of his colonies at all times, we would have no foul brood. But so long as we have dirty, careless botches keeping hives full of rotten brood, we will have foul brood originating and breaking out to ruin the good men.

What good have the scientists ever been to the bee-keepers? I don't like to come down so hard on these men, but what else can I do when they won't help me by advising all bee-keepers to keep all dead matter out of their hives at all times. They don't do that, but Mr. Corneil and his so-called scientists get right squarely in my road, and block my way, by finding fault with me when I am doing my best to get all to stop manufacturing foul brood to ruin their neighbors.

Prof. Shaw is a thorough, practical man, and he agrees with me on the cause of foul brood, and knows that I was the first to discover it. Mr. Allen Pringle, who is the best read man in science that I ever met, agrees with me on the cause of foul brood. In the "Foul Brood Bulletin," page 7, Mr. Pringle says:

> "My own settled conviction is, that foul brood is often caused by the rotting in the cells of brood dead from other causes. Assuming this to be true (and there is ample evidence to warrant such an assumption), our course to prevent the origination of foul brood in our apiaries is perfectly clear: Avoid as far as possible having dead brood from any cause, and, when found, remove the comb containing it, and melt it into wax (no great loss), instead of following the usual practice of giving it to the bees to 'clean out.' They might clean it out and they might not, depending on circumstances. In case of weak colonies, especially, never allow dead brood to remain with them under any circumstances, and keep everything clean about the hives and yard. That much we can at least do towards preventing foul brood arising at home."

I never read any advice so well to the point as Mr. Pringle has given in so few words on this subject. It downs any advice I ever read from any scientists, and my advice to all is to pay attention to these words from Mr. Pringle.

I have received many letters from the bee-keepers of the United States to show that my article in the AMERICAN BEE JOURNAL of May 11th has changed many of those who believed in the opinions held by the scientists. I here give a letter from a bee-keeper in Colorado, omitting his name:

COLORADO, July 5, 1893.

"WM. MCEVOY, Woodburn. Ont.

My Dear Sir:—I have read with much interest your article on the cause of foul brood, in the AMERICAN BEE JOURNAL for May 11th, and have been waiting for the cure article in vain. Will you not please give me the cure, as I am fully convinced (much against my former views) that your statement as to the cause is correct.

I am just commencing the bee-business again, after I had lost everything by foul brood. Scientists here, as well as elsewhere, have led us astray, and we must now rely upon practical experience. I am sure many in all parts of our country are looking for your promised article. Hoping that you can favor me,

I am, very truly yours,

— — ———."

The above letter was written just one day before my last article in the BEE JOURNAL, giving the cure of foul brood.

My present article is already too long, or I would give all my experiments in trying to cure foul brood, and explain my "hits" and "misses" before I came to make a sure cure of it, and the reasons why I failed in some and succeeded in others with the very same treatment. I believe I will give it through the AMERICAN BEE JOURNAL, in order to help others to better understand how to manage the curing of foul brood, if they ever get as sorely tried as I was with it in 1875.

Woodburn, Ont., July 17, 1893.

"Pulled" Queens—What They Are, Their Value, Etc.

Written for "Gleanings in Bee-Culture"

BY DR. C. C. MILLER.

When a colony prepares for swarming, it is well known that a number of queen-cells are started; and about the time the first one is sealed, the swarm issues. I may say, by the way, that I am saying this on general authority, for my own experience is that bees oftener swarm before any queen-cell is sealed. In any case, after the swarm has issued, a second swarm is likely to issue; and before this swarm issues, piping and quahking may be heard.

At the time of this piping and quahking, there is a young queen at large in the hive, the one that does the piping; and the queen or queens that quahk in response are mature young queens that have not yet left the cell, but would do so at once if the coast were clear. They are, perhaps, deterred from issuing from their cells by the fear of the piper, or, more likely, because the workers that constantly surround the cell drive them back whenever they attempt to come out. You can take out a frame, pull off these queen-cells, or pull the end off them, releasing the queen, and such a queen is called a "pulled" queen.

It is well known that a young queen just hatched may be put into any hive, and the workers seem to pay very little attention to it. I doubt, however, whether this is so unexceptionally true as some seem to think. A queen just hatched may be put into a colony having a laying queen, and may supersede her; but I am not sure such will not be the case under all circumstances. Acting on the theory that young queens would be kindly received, and assume control anywhere, I tried one summer to replace a large number of my old queens by putting into the hives young queens just hatched, trusting that they would kill the old ones. In at least some of the cases I found the young queens all right for a day or two, but sooner or later they all disappeared, and, if I remember correctly, the thing was a failure in every instance.

If there had been no laying queen in the hive, or one that for any reason the workers desired to supersede, the result might have been different. It is possible that the young queen gets along on good terms with the workers until she takes it into her head to make any attack on the old queen, when the workers put her out of the way. Still, I have known bees to attack a young queen with no laying queen in the hive, the laying queen having just been removed; but generally, after annoying her somewhat, I think they let her go. While a very young queen will be accepted, at least for a time, almost anywhere, it is well known that a virgin queen several days old, is difficult to introduce. It may be, then, that the difficulty of introducing increases with age, and that a queen that has been held in her cell by the workers for a day or two is not so readily received by the bees as one that has not yet attained sufficient age to try to leave its cell. I am inclined to think such is the case.

At swarming-time, when it is a common thing to find ten or more queen-cells in every hive from which a swarm has issued, the supply of pulled queens is likely to be greater than the demand, so I have generally paid little attention to the appearance of the cells, but pulled all indiscriminately; and if the queens were not ripe enough, it was an easy thing to throw them away. To be serviceable, it is not necessary to wait until a young queen is gnawing its way out, nor until it is well colored. No matter how green-looking a queen is, if it is mature enough to hold on to the comb and travel over it, it will be all right. Younger than this, the bees will drag it out, just as they would a dead bee.

In forming nuclei, I think it much better to give a pulled queen than to give a queen-cell. It is less trouble. There is less risk; for there are a good many cases, whatever may be the reason, where a good-looking cell contains a dead larva, and sometimes a dead queen that looks fully matured. It saves time, for the cell may be several days hatching. Besides, if there be any advantage in having a young queen reared in a full colony, and I think there is, a pulled queen has that advantage to the full.

A pulled queen is the quickest and easiest cure for laying-workers. So far as I have tried it, it is a sure thing. Just drop a pulled queen on the comb among the brood, and that's all. I believe that, if you try pulling queens, you will not be sorry.

Marengo, Ill.

Self-Hivers Discussed—The Season in California.

Written for the American Bee Journal

BY C. W. DAYTON.

Some time ago I read in a bee-paper that self-hivers had "had their day," which is very much contrary to my belief, and I will try to state some of the reasons for such belief.

The great block the self-hivers stumbled upon at the outset was, that they should hive the swarm so that the bees would go at work in the supers without the farther intervention of the apiarist. I think this requisition was suggested by the editor of the *Review*.

In order to do this, there was required an extra hive and extra super, not only for a swarm when it issued, but for all the colonies in the apiary that were liable to cast swarms. If the parent hive and super cost one dollar, then this new one would cost one dollar besides the cost of the hiving arrangement, together with the trouble of adjusting the hives and hiver, which throughout the whole apiary is a heavy expense. In fact, it very nearly doubled the expense of furnishing and running an apiary, in the face of the fact that bee-keepers were already beginning to discuss the topic, "Does Bee-Keeping Pay?"

While the hivers were being boomed by queen-breeders, honey-producers decided that the main want was not so much in the *hiving* of the bees as detaining them from leaving for parts unknown, and the queen and drone traps already in use would effectually do this, and their comparative cheapness was their advantage.

It has also been stated that when the queen is trapped, the bees return to work the same as before their attempt to swarm. This is simply bosh, and it is well known that they often do very little for two or three days before swarming, and nothing at all but loaf until they have been satisfactorily hived in new quarters.

Another mistake which has got "a-going" is, that the queen being retained in the trap may be killed by the bees of the swarm. It is my opinion that a queen was never so killed, but, rather, it was by bees of the old colony, after a sufficient absence for the bees in the old hive to accept for themselves a young queen, or cells, in which case the absence may sometimes not exceed five minutes.

A hiving arrangement that required a hive in front or beneath was too expensive at once, while Mr. Pratt's late hiving-board admitted of making a Heddon hive-stand into a hive by having a bottom put into it so the bees could remain in new quarters until the bee-keeper came around to fix them up.

In my case, I do not have any use for hive-stands, and would prefer the entrance to be one or two auger holes in the center of the front board of the hive, the only possible objection being that it would be harder for the bees to carry out dirt and rubbish. But if this difficulty does not confront the "K. D." hive, it would not any hive.

A hive composed of shallow sections would admit of a hive-stand the same depth of a section, so what work the swarm did might be in the regular-sized brood-frames. By this plan a part of the former expense could be avoided. As to whether such hiving apparatus should be procured, depends as well upon the amount of swarming we have. This season, out of 150 colonies, I had two swarms. Last season, in Colorado, I think there were about six out of 300 colonies. In 1891, I had eight swarms out of 100 colonies. In 1890, one out of 40, and in 1889, one out of 100 colonies.

In the earlier seasons of my bee-keeping I used to have considerable swarming, and I think now it must have been caused from the lack of understanding as to when and how the surplus room should be given. There are apiaries here which have this season cast one swarm for every two colonies they contained, but it was caused from the lack of space to rear brood or store honey. If we wait until the lower story is full of brood, and a strip of capped honey is along the top-bars before putting on the upper stories, it may not have any effect upon a colony swarming, because the brood and honey-storage departments may remain in a crowded condition because of the failure to properly occupy the added space. When one or two of the central combs begin to be capped, is the time more space is needed, and it is an excellent plan to put the one or two capped combs into the upper story, and put empty combs or frames in the center of the brood-chamber in their places, so that the bees will immediately occupy the added room. In short, after the colony has once felt the need of more spacious quarters, it is almost useless to give more room with the exception that it will prevent or retard swarming.

I presume it was decided that self-hivers had "had their day," on account of the new swarming devices. If there are so few swarms, will it pay to re-adjust the hives and supers all the season to prevent them? It looks like cultivating ten acres to kill the weeds that were liable to grow on one, and it would seem to some the easier to wait until the weeds came out of the ground on the one acre and then pull them out by hand.

One bad feature of the self-hiver is the loss of young queens when the bees attempt to supersede the old queen. The swarming devices have this same fault, as when the young queen comes out to mate she would be conducted into the wrong brood-chamber. This might supersede the old queen, but would end in laying-workers in the other hive, and in the end the laying-workers may get into the other hive and result in laying-workers in both colonies.

In consequence of my experience of several years with the queen-restrictor, I know without trial that these devices will do all that is claimed for them, but no more than the queen-restrictor.

About four years ago, in a foot-note to an article in *Gleanings*, in which I had explained that inversion of the restrictor would prevent the construction of queen-cells, the editor said, "If we are not mistaken, the inversion of queen-cells does not always cause their destruction; how is this, friends?"

The point I wished to make was, if the restrictor was reversed early enough, and often enough, no queen-cells could be built except by *starting* them wrong side up. The negligent apiarist would be very likely to omit the inversion until it was too late—until the cells were nearly completed. This same negligence will cause swarming with any plan.

My bees began to swarm this year on March 25th, and there were about 40 swarms in the following 35 days. They were headed for the honey harvest about May 5th, after which date only two swarms issued. The honey harvest began on May 18th to 20th, and ended June 25th. The bees are still gathering a little honey, but it appears to be impossible to make them swarm. My crop is about 80 pounds of extracted honey to the colony, or about one-third of what it should have been. One-third is dark and unsalable, and the best quality commands only 4½ cents per pound in Los Angeles. My increase is 130 per cent.

All my colonies were transferred last fall and spring, and had only 4 to 5 combs to the colony to begin the season, and by dividing the number of new combs built, by the number of old colonies, it is found that they have built 25 new combs each from ½ inch foundation starters; but I think they gathered just as much surplus as they would with plenty of surplus combs, built as the new combs were built before the opening of the harvest.

California bee-keepers are great for "keeping in their shell," and it is hard to find out by them what the crop has been, but I am able to keep my honey until they come out without coaxing.

The dealers say there has been a great crop, but it is almost all in some other locality, or county, and I don't put much confidence in that kind of "taffy."

Pasadena, Calif., July 5, 1893.

Value of Bees to Fruit-Growers, Farmers, Etc.

BY THOS. D. BAIRD.

There seems to be quite a difference in the views of fruit-growers, as well as apiarists, as to the value of bees. Many fruit-growers claim that bees are very destructive to ripe fruits. I have been watching the bees in my garden for several years, and from my observation I think bees are the fruit-growers gardeners, and the farmers best friends, for I find when bees are scarce, my fruits and many vegetable crops are rather sorry.

It seems to me that any observing, thinking man would find that bees perform important functions in the propagation of vegetable life. Indeed, they are the means by which certain plants continue their existence. Besides fruits, the clovers have no means of fertilization, except by bees carrying the pollen from one plant to another; and in the case of red clover, only the large bumble-bee is adapted to this work, on account of the length of its proboscis.

Besides clover, a certain class of vines, such as cucumbers, melons, squashes, and all of that family, are totally dependent upon bees for their propagation, as they are too close to the ground for the winds to do much in this way.

Since bees perform such an important part in the economy of nature, it would naturally be supposed that farmers and fruit-growers would encourage the keeping of bees, and preserving the bumble-bees. But instead of this, while the various bees are busy carrying pollen and fertilizing the boy's melons, he is busy hunting their humble home to destroy it; and not only the boys, but the farmers, hunt and destroy every bumble-bees' nest they can find, until they are very scarce.

Observation, the past season, has taught us that apple-orchards near large apiarists were well laden with fruit, while those at a distance from any apiarist were a sorry crop, or none at all. The scarcity of apples is thought to be caused by so much rain last season, washing the pollen off. This is good doctrine, but much of it should be credited to the bees, which couldn't be out while it was raining, to carry on pollenization. I, for one, believe the fruit-grower and apiarist should be good friends, and encourage each other, or combine the two into one business.—*Exchange.*

Don't Use Foul-Broody Hives, Etc., Without Disinfecting.

Written for the American Bee Journal

BY R. E. PARCHER.

I was much surprised upon reading Mr. McEvoy's article on foul brood, having waited patiently for it, and expected something different, and I am sure many others did. I was disappointed.

Having had considerable experience with the disease, I have taken great interest in all I have seen in print regarding it. The article, on page 48, by Mr. S. Corneil, sets me right; he treats Mr. McEvoy and his article fairly and candidly, I think.

The advice I now offer to those who have foul brood in their apiaries is given from my own experience, and such facts and conclusions as I have been able to pick out of bee-literature. You can safely use Mr. McEvoy's method, but *don't* use the old hive until it has been *thoroughly cleaned* and boiled (or scalded with *boiling* water). I scrape off all wax and propolis, and use a tea-kettle of *boiling* water to each hive. The only method that has never failed me, is this:

In the middle of the day, when the bees are flying lively, open the diseased hive and find the queen and cage her; move the hive to a new stand some distance away, and place a clean hive on the old stand with two or three clean combs or sheets of foundation, and the queen released. Let them work not less than three days, then remove this hive, bees and all, and put in its place another clean hive filled with combs, foundation, or empty frames, as you choose; again find the queen, place her in the new hive, and shake all the bees in front of it. If you have done this carefully, you will see no more foul brood in that hive until it is carried in again.

Let the old diseased hive stand until the brood is all hatched, then repeat the process, and you have two healthy colonies, if the old colony has reared a queen; if not, give them one, and destroy or *thoroughly* cleanse the two hives with *boiling* water. A boiled hive, honey-board, excluder, or other implement, *will not* carry the disease. Boiled honey is safe to feed.

I have no doubt the disease can be cured in the old hive, as Mr. McEvoy says, but *don't* risk it. Cholera, diphtheria, typhoid fever, and many other germ diseases can be cured in a house, but *don't* live in it without disinfecting it; it is not safe.

Wausau, Wis., July 17, 1893.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Aug 15.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Dr. C. C. Miller....Marengo, Ills.
Vice-Pres.—J. E. Crane.......Middlebury, Vt.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.

Your Neighbor Bee-Keeper

—have you asked *him* or *her* to subscribe for the Bee Journal? Only $1.00 will pay for it for a whole year. And, besides, *you* can have Newman's book on "Bees and Honey" as a premium, for sending us two new subscribers. Don't neglect your neighbor! See page 131.

LETTER BOX
REPORTS & PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Gathering Lots of Honey.

Bees are doing well. My bees are gathering lots of honey, but not swarming much. I left seven acres of alfalfa for seed, and the bees are on it from daylight until dark.
C. C. Zinn.
New Windsor, Colo., June 25, 1893.

White Clover a Failure.

White clover is an entire failure. Basswood lasted only about a week. The weather is extremely dry and hot, and no prospect of rain. We have no surplus honey except from basswood near river bottoms.
A. M. Southworth.
Lacon, Ills., July 22, 1893.

Has Taken No Honey.

Is there *in fact* the large crop of honey that the reports (especially in *Gleanings*) indicate? Those getting honey report, while those getting none do not feel like saying anything that costs a Columbian stamp. I have taken no honey, and there is none on the market here.
J. Wes. Clark.
Clarksburg, Mo., July 20, 1893.

The Season, Prospects, Etc.

The past winter and spring were the worst of which I have any recollection, and proves that small colonies cannot be wintered out-of-doors; no matter how well packed, or how much stores, they will cluster in one end or side of the hive, and consume all the stores within reach, and then starve with plenty of honey in the next comb.

The past winter was very long and severe. The bees on the summer stands did not have a general flight from Nov. 1st till April 4th, then cold, high winds were the order for the next three weeks.

My bees brought in the first natural pollen on April 28th, it being 14 days later than usual. It was very rainy until fruit-trees and dandelions bloomed, the first of June, they being 10 days late. My bees have done first-rate since then, on the fruit-bloom. I think they are in as good condition as in other years, but some of my neighbors have not fared so well, the loss being from ½ to ¾, and two or three slipshod ones lost all.

A friend of mine has done even better than myself. He packed 8 colonies, and lost none. My loss was 4 per cent.

I think the Tennessee honey-prophet will hit the mark this year. He says New York State bee-keepers will not have large crops of honey to keep secret, and I am inclined to agree with him. Not on account of atmospheric conditions, but because the linden will fail to bloom. I have examined it very closely in my immediate vicinity, and it shows but very few buds.

My first swarm came out on June 8th. I have extracted about 50 pounds from my best colonies, of fruit-blossom honey—the first surplus I ever took from fruit-bloom.

IRVIN GROVER.

Cooperstown, N. Y., June 26, 1893.

Virgin Queens and Queen-Excluders.

I am young in the bee-business, but would like to put in a word about virgin queens creeping through queen-excluders. With Alley's queen-trap I have never failed to catch the first swarm, but this summer an after-swarm came out through the trap, clustered, and in an hour left for parts unknown. I suppose, in this case, all bee-keepers will agree in believing that the young queen made her way through the trap; although another experience may throw a doubt on the above. Two days after this swarm's departure another colony cast an after-swarm, which clustered near by. After letting it hang a short time, I concluded to run no risks, but to return it to the hive, but at the first shake of the limb, it took wing and left, going toward a body of timber a mile off. Two hours after, while showing a friend my bees, I saw that swarm return and enter the hive it had come out of. I had Alley traps on both hives.

F. T. BROOKE.

Brookewood, Va., July 24, 1893.

Queens Laying in Queen-Cells.

On page 788, Mr. Thos. Johnson, in his article on bee-keeping matters, refers to Mr. D. L. Nelson speaking about the queen laying in queen-cells, and wants some proof for the same. Now here is something that proves it:

On June 19th and 20th two colonies of bees swarmed—I think the cause was the extremely hot weather, for these colonies were preparing for swarming, but not yet ready, as shown by their queen-cells. They had from six to eight queen-cells under way, but only one in each hive had an egg in it when they swarmed.

The swarms were hived by themselves, and to-day an examination showed that from five to eight queen-cells were built over larvæ the same as would be the case in enforced queenlessness. Now if bees could deposit the egg, as Mr. Johnson says, why did they not do so instead of building all new cells over the larvæ? I believe the queen lays the egg in the queen-cell, for if these queens that swarmed out of the hive had staid a few days longer, there would have been eggs in more, or all, of the queen-cells; and, furthermore, if a queen was as jealous as Mr. Johnson thinks she is, she would not lay in drone-comb, either. If the bees did rear a queen themselves they would not get her mated.

AUGUST BARTZ.

Chippewa Falls, Wis., June 26, 1893.

Confined Too Long by Winter.

Bees in this vicinity, as far as I can find out, did very poorly on account of too long a confinement. The most of them have died. There are a good many bee-keepers here, but some of them have lost all the bees they had. I had 9 colonies left last spring from 40 last fall. Those that lived through were weak.

The middle of May my bees had their first flight, and soon after carried in the first pollen since last fall, which was too long a time for them to stand it in-doors. Some of my colonies have dwindled down to a mere handful, but have done well all summer, and are doing well now in increase and storing honey. I winter my bees on the summer stands, and have now in all 16 colonies.

FRANK HENTRICH.

Wall Lake, Iowa, July 22, 1893.

Linden and White Clover Honey.

The linden flow is at an end; it lasted about four days; but it was immense. I have colonies with eight frames of extracting combs, and two supers full of linden honey. They are evaporating it and finishing from the brood-chamber. If the hot, dry winds had not come for five or six days longer, what would it have been! Bees are capping it as white as snow.

Talk about your non-swarming! Out of 40 colonies run for honey, 4 of them concluded to separate, and swarmed.

Now, Mr. Wilson, are the white clover and linden a failure in western Iowa? What caused such a crop of linden bloom? Tell us all about it now, Sam.

THOS. JOHNSON.

Coon Rapids, Iowa, July 17, 1893.

The World's Fair Women "Souvenir" is the daintiest and prettiest book issued in connection with the World's Fair. It is by Josephine D. Hill—a noted society lady of the West—and contains superb full-page portraits and sketches of 31 of the World's Fair women and wives of prominent officials connected with the great Fair. It is printed on enameled paper, with half-tone engravings, bound in leatherette. We will send it postpaid for 60 cents, or give it for *two* new subscribers to the BEE JOURNAL at $1.00 each.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, July 29, 1893:

CHICAGO, ILL.—We quote fancy new honey at 18c.; No. 2, at 16c.; amber, 15c. Beeswax, 22@25c. We have had some shipments of fancy new stock wnich sold at once. J. A. L.

CHICAGO, ILL.—There is not much movement in comb honey. Prices range at from 12@16 and 17c., all good grades bringing 15@17c. A few cases of the new crop have arrived and brought the top prices. Beeswax is very steady at about 25c. Extracted honey is moving very slowly at from 6@8c.
R. A. B. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.
Beeswax—20@23c. C.-M. C. C.

CINCINNATI, O.—Trade is dull in all its branches, with a fair demand for extracted honey at 5@8c. Prices for comb honey are nominal, with no choice honey on the market.
Beeswax—Demand fair, at 20@23c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—No comb honey on the market. New crop extracted is now arriving freely from California and the South, and the market is well stocked. Trade is quiet, demand light, and prices have a downward tendency. We quote—Southern, common to fair, 60@65c. per gal.; choice, 70@75c. per gallon. California, 6@6½c. per lb.
Beeswax—25½@27c. H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality, 1-lbs. Beeswax is neglected at 22@23c. S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 6@7c. No beeswax on the market. H. & B.

BOSTON, MASS.—Honey is selling slow and prics are lower. Best 1-lb. comb, 16@17c.—Extracted, 8@10c.
Beeswax—None on hand. B. & R.

ALBANY, N. Y.—Honey market opening up now as berries going out. We have received some lots and sold to advantage. We quote: White clover comb, or basswood, 16@17 cts.; mixed, 14@15c.; buckwheat or dark, 12@13c. Extracted moving slowly unless white, which sells at 8@9c.; mixed, 6@7c.; dark, 5@6c.
Beeswax—Slow at 26@28c. H. R. W.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white conb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.
F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN, 28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.
SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.
J. A. SHEA & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.
HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.
H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.
CHAS. DADANT & SON.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

Convention Notices.

ILLINOIS.—The summer meeting of the Northern Illinois Bee-Keepers' Association will be held at the residence of O. J. Cummings, 2 miles northeast of Rockford, Ills., on Aug. 15th, 1893. A good meeting is anticipated. Everybody is invited. Come and see Mr. Cumming's methods of handling bees.
New Milford, Ills. B. KENNEDY, Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land, FRANK BENTON, Sec.
Washington, D. C.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE — High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

WANTED—A good girl to do general house work in a family of four persons, two being children. A Methodist (or protestant) preferred. Reference—George W. York & Co.
Address, MORTON J. DATE,
3Atf 189 Washington St., Chicago, Ill.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given n the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal......	$1 00....	
and Gleanings in Bee-Culture....	2 00....	1 75
Bee-Keepers' Review........	2 00....	1 75
The Apiculturist..............	1 75....	1 65
American Bee-Keeper.......	1 50....	1 40
Canadian Bee Journal.......	2 00 ...	1 75
Nebraska Bee-Keeper.......	1 50....	1 35
The 7 above-named papers	5 75....	5 00
and Langstroth Revised (Dadant)	2 40....	2 25
Cook's Manual of the Apiary	2 00....	1 75
Doolittle on Queen-Rearing.	2 00....	1 65
Bees and Honey (Newman)..	2 00....	1 65
Advanced Bee-Culture......	1 50....	1 35
Dzierzon's Bee-Book (cloth).	2 25....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
A Year Among the Bees	1 50....	1 35
Convention Hand-Book......	1 25....	1 15
Illustrated Home Journal..	1 50....	1 35

Alley's Queen-Rearing book, or "Thirty Years Among the Bees," gives the result of over a quarter-century's experience in rearing queen-bees, and describing the practical, every-day work. By Henry Alley. It contains an "Appendix," showing the improvements made in queen-rearing the last four years. Very latest work of the kind. Nearly 100 pages, with illustrations. Price, postpaid, 50 cents; or clubbed with BEE JOURNAL one year, for $1.30.

Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the BEE JOURNAL for one year, for $1.15.

Dr. Miller's "A Year Among the Bees" is a book of over 100 pages. It commences with the necessary work in the spring, and runs through the entire year, detailing the methods of doing, as well as telling when to do, all that should be done in the apiary. Bound in cloth. Price, postpaid, 50 cents; or clubbed with the BEE JOURNAL for one year, for $1.35.

"Bees and Honey"—page 133.

ONE DOLLAR
Will purchase a **Ten Dollar** Queen by **Return Mail.** **HENRY ALLEY,**
WENHAM, Essex Co., MASS.
Mention the American Bee Journal.

Fine Italian Queens.
Tested, $1.00 each; Untested, 60c.
From Best Imported Mothers Only.
ALL young, and for Gentleness, Industry and Uniformity of Color, their Bees are unsurpassed. Safe delivery. Must send P. O. Money Order on Decatur, or remit by registered letter. **CLEVELAND BROS.,**
DECATUR, Newton Co., MISS.
26A9t *Mention the American Bee Journal.*

Choice Italian Queens
FROM Imported Mother. $1.00 each; 6 at one time, $5.00. Untested Queens, 75 cts. each. Address,
C. A. BUNCH,
25Atf **NYE, IND.**
Mention the American Bee Journal.

Are YOU Coming to the ✻ ✻
WORLD'S FAIR?
If so, you should secure **Accommodation in advance** of coming to Chicago
Young Ladies Specially Cared For
You are invited to correspond **at once** with
MRS. J. P. COOKENBACH,
987 Wilcox Ave., CHICAGO, ILL.,
Who will be pleased to help all desiring to have a comfortable and pleasant place to stay while visiting the World's Fair, and at very **reasonable rates.**
REFERENCE: By permission, **"American Bee Journal."**
Mention the American Bee Journal.

THE RURAL CALIFORNIAN
—TELLS ALL ABOUT—
BEES IN CALIFORNIA!
The Yields and Price of Honey; the Pasturage and Nectar-Producing Plants; the bee-ranches and how they are conducted. In fact, the entire field is fully covered by an expert bee-man.
Besides this, the paper also tells you all about
California Agriculture and Horticulture.
$1.50 per Year; Six Months, 75 Cents. Sample Free.
The Rural Californian,
218 N. Main St., Los Angeles, Calif.
5C1y *Mention the American Bee Journal.*

ESTABLISHED IN 1861

THE AMERICAN

BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., AUG. 10, 1893. NO. 6.

EDITORIAL BUZZINGS

Our Chinese Contributor, Mr. Wung Lung, of California, favors us with another article on page 180, which gives more details of his interesting experience with the "honey-flies." His characteristic descriptions are certainly amusing, if not altogether instructive. It does us all good to have a hearty laugh, and the oftener the better for our health and happiness. We commend Wung Lung's writings to all who are inclined to gloominess, or are easily discouraged. Others like Dr. Mason and Dr. Miller, who are never troubled with "long faces," can skip Wung Lung's "face-broadening" contributions.

Bro. Hutchinson visited the Michigan experiment apiary a short time ago, and found Mr. Taylor, the State apiarist, hard at work. Besides a picture of the State apiary, the July *Review* cantained Mr. Taylor's first article on "Work at Michigan's Experimental Apiary," which describes some of the experiments now being conducted. Mr. Taylor certainly is "the right man in the right place," and his work will prove of great value to bee-culture all over the world. Next week we will give to our readers Mr. Taylor's first report.

Have You Read page 189 yet ?

Apicultural Experiments is a topic that has been up for discussion, more or less, for several years, but during the past few months, or perhaps a year, it has received more careful attention than ever before.

On page 178 of this issue of the BEE JOURNAL, the editor of the *Bee-Keepers' Review* gives, in a clear, concise, and comprehensive manner, the various reasons why bee-keepers should have experiments conducted, and also how to go about securing the establishment of State apiaries in which may be carried forward such experiments as shall most aid the progressive bee-culture of to-day.

As Bro. Hutchinson so thoroughly covered this subject in his introductory editorial in the July *Review*, we decided, after several careful readings, that we could not do better than to copy it for the benefit of our readers, and we trust that all will give the matter the attention it deserves, so that they may be able to help in obtaining what must prove of inestimable value to bee-keeping everywhere, if once secured and properly carried on.

While we agree with Bro. H.'s ideas upon this matter in almost every particular, we can see no need for *every* State spending its money for conducting the same experiments. For instance, why should Illinois and Iowa employ two sets of men and apiaries to experiment upon a question that can just as well be settled by either State alone ?

Why would it not be as satisfactory to have say four experiment stations to take up the work—located in the North, South, East and West ? As Michigan already has one, let that suffice for the North. For the South, have one in Texas; for the East, in

New York or Vermont; and the West, in California. If a central one is needed, have it in Kentucky or Missouri.

If the experiment apiaries can be manned and the work carried on at a minimum expense of $500 each, why spend something over $20,000 when about $2,000 will do the same work? If the *right* persons can be secured in *four or five first-class* experiment stations, to take charge of such experiments as shall be thought to be of the most value to bee-culture, we feel certain that the results obtained will be as satisfactory and final, if not more so, than if the same work was spread out among 40 different apiaries and experimenters.

Again, the reports from four or five intelligent and painstaking experimenters will be more likely to be given in full in the various bee-papers, and also will receive a much better hearing and consideration by reading bee-keepers than would 40 or more such reports. We believe in concentration rather than "scatteration" in so important a work as this.

In regard to the Bee-Keepers' Union helping to bear the expenses of committees whose duties shall be to endeavor to secure the establishment of bee-experiment apiaries, we would say that we also "believe it would be money well spent," if used in securing a *limited* number of such apiaries, but not in all the States and Territories of the Union. If the latter were attempted, there likely would be scarcely sufficent funds to more than pay for the necessary postage and stationery, saying nothing of time and carfare required by the numerous committees in meeting the Boards of Agriculture, etc. Now that the resources of the Union may be used in whatever direction a majority of its members decide, we, as a member of the Union, most assuredly would favor the use of a portion of its funds in this work, as we believe it will ultimately prove to be of almost as much benefit as if spent in defending the rights of bee-keepers. In fact, it would be exactly in the line of aiding them in getting their rights, when attempting to secure experiment apiaries, for surely a *portion* of the $15,000 which each State and Territory receives annually *belongs* to apiculture, and should be devoted to its interests.

In those States where no experiment apiaries are established, the bee-keepers' share of the $15,000 could be used by the State bee-keepers' association, for the publishing of its reports, and in otherwise building it up and educating the people in the uses and value of honey as a food and as a medicine, thus creating a greater demand, and also in showing the great help that bees are to horticultural and agricultural crops.

O, this is a large subject, and we have said enough for this time. We would now like to learn how our readers view this matter of experiments in apiculture.

◆

Hinting at the Blarney Stone.—A few days ago we received the following letter from our Bro. Stone, whose picture and biographical sketch we gave on page 107:

> WORLD'S FAIR GROUNDS, July 28, 1893.
>
> FRIEND YORK:—When our President Hambaugh came to the Fair Grounds yesterday, from a visit to your office, and held before me the BEE JOURNAL of July 27th, asking me, "Do you know that gentleman?" I was much surprised in more respects than one. First, I thought the picture reflected great credit on the artist, and is a flattery on his part; but when I read the article connected therewith, I was reminded of the language I heard the other day in the neighborhood of Blarney Castle, and think my friends must have taken a journey to that place in company with yourself.
>
> Yours truly,
>
> JAS. A. STONE.

For the information of those of our readers who may not have before heard of Blarney Castle, we would say that at the World's Fair is a reproduction of the famous Castle in "Ould Ireland," and also within it, so they say, a portion of the noted "Blarney Stone," which every good Irishman, we believe, is supposed to have kissed. Now to suggest that this editor and Miss "One of Them," who wrote the sketch of Bro. Stone, had "taken a journey" to the new Blarney Castle and kissed the Blarney Stone—why, it's a terrible insinuation! In fact, it's the "Blarneyest" kind of blarney for Stone to "get off;" and we shall think Bro. Stone is a kind of "Blarney Stone" himself, if he makes any more such hints. But we'll be easy on him this time, and hope he'll—well, *forgive us* for surprising him with that biographical sketch.

◆

Honey was once considered a luxury, but now it is within the reach of the common people. Every bee-keeper should see to it that they get it.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Leaving on Supers When Not Storing.

Is it best to leave on the upper half or super part of the hive empty of everything when the bees are not storing any surplus honey? F. N. GARDINER.

Guthrie, O. T.

ANSWER.—It is certainly not good to have sections on a hive when the bees are not storing, on account of the injury done to the sections, but as you put the question there are no sections, and the question is whether it is a good thing for the bees. Perhaps not many leave supers on when not in use, but some report favorable results from wintering with supers left on. We do not remember to have seen any adverse reports, yet adverse reports are not generally so freely given as favorable ones. Perhaps you can decide the matter most satisfactorily for yourself by trying part in that way.

◆

The All-Wood Queen-Excluders.

Last spring, or winter, when I ordered my supplies, I ordered an all-wood queen-excluder for each hive, and as soon as the bees had got nicely started in the first super, I put on a second and one of the all-wood queen-excluders under super No. 1. I found that they quit working above, and went to building on the excluder. Not liking that, I removed the excluder, and they went to work again in good earnest, and I thought no more about it until a few days ago I took off my first honey. Out of three supers that I took off, two were easily cleaned of bees, but the third I found after a day or two had brood in, and the young bees were hatching out. Now for my questions: 1. Have bee-keepers in general, who have tried all-wood separators, found them a success? or are they a failure?

I had used them in the early spring to transfer with, and the queen got back somehow in all but one instance, and they warped and curled fearfully. Question No. 2. If I now cut out the comb in the sections where brood has been, and return them to the bees, will they fill the sections full of honey so that I can put the honey on the market? Of course it will be dark honey, as the only thing they have to work on now is buckwheat—it is just beginning to bloom.

We had a fine honey-flow for a little while, but the dry weather cut it off short, and now the bees are loafing.

E. B. ELLIS.

Cooksville, Ills., July 14, 1893.

ANSWERS.—1. We do not remember to have seen any reports from those who have used excluders made entirely of wood, except such as were formerly made of slats, and they were entirely unreliable. We should be glad to get reports from any who have used all-wood excluders, made with perforations after the manner of zinc excluders.

2. Yes, if you cut the brood out of the section, and return the section to the bees, there is no reason why they should not fill it in good shape, provided there is enough of the comb without brood left at the upper part to serve as a starter; or you can put in a fresh starter of foundation.

◆

Getting Bees to Work in Supers, Etc.

1. How can I get my bees to work in the supers? I have tried putting up combs full of honey from below, but they insist on building straight up from the lower frames through and into the upper frames.

2. Should comb honey be taken during the honey-flow where frames are used in the super? EARNEST NOVICE.

Grand Prairie, Tex.

ANSWERS.—1. If your question is not misunderstood, your trouble is not to get bees to work in the upper story but to keep them from working between the two stories. It is simply a matter of room. If there is room enough between the upper and lower stories, you may be sure the bees will fill it if they work in both stories. If there is a queen-excluding honey-board between the two stories, see to it that there is no greater space than a quarter of an inch between the top-bars in the lower story and the honey-board, and between the honey-board and the bottom-bars of the upper story. If there is no honey-board, but the queen is allowed to roam at her own sweet will in either story, then have only a quarter of an inch between the top-bars of the lower story and the bottom-bars of the upper story. If your question is not correctly understood, please ask again.

2. Perhaps most honey-producers extract from time to time during the honey-flow. Others, and among them those noted producers, the Dadants, leave all the honey on the hives, adding as many stories as necessary until the close of the season, then taking off all, and extracting, if desired.

Moving Bees About 200 Yards.

I have about 70 colonies of bees to move 200 yards, between Aug. 1st and 15th. What is the proper time of the day to move them? What length of time must they be kept closed after being moved? Is it policy to take off the supers? P. LATTNER.

Worthington, Iowa.

ANSWER.—Probably it makes no difference at what time of day they are moved, providing all the bees are in the hive. You might commence moving as soon as they stop flying in the evening, and stop up any that are left to be moved in the morning, although it would be better to finish the job in the evening. The longer they are kept shut up the more likely they are to mark their new location when they come out; but then you must remember that it is no great benefit to bees to be shut up very long in the month of August, nor indeed at any time. Be sure that they have plenty of fresh air, then if they are moved in the evening no great harm will come from leaving the hives closed till the middle of the next day. Have boards in front of the hives so as to impede as much as possible their free exit, and make everything on their old location look as different as possible.

Colonies Killing their Drones, Etc.

I have a colony of bees that I hived June 12th. I put them into a 10-frame hive on comb foundation; they filled the lower frames, and I put on two 32 one-pound surplus section supers, one super at a time, and when that was full I placed the second one under it, which will be filled in about three more days. For the last three days they have been killing and carrying out dead drones and young worker bees. Some of the young bees have their insides all taken out, leaving nothing but the shell. They are also killing the full-grown drone-bees. What is the trouble? They are working very hard.

I have 7 colonies, and they are all doing well; three of them have their second set of 32 one-pound sections, and the other four have their first set almost filled.

There are acres of clover here, but the bees don't seem to be working on the white clover much. My bees are gathering honey very fast from sweet clover.

I am a beginner, but with the assistance of the AMERICAN BEE JOURNAL I will soon catch up. I receive it every week, and am very much pleased with it. WM. H. DURHAM.

Rockford, Ills., July 20, 1893.

ANSWER.—Your bees are all right. The white clover harvest is over, and they are looking out for your interests too closely to have you support a lot of useless drones. Or, perhaps it is better to say that linden and white clover both stopped with you about July 20th. Even if you see bees working very busily on sweet clover, there is not enough of it for the bees to store much surplus, in all probability.

You say your bees don't seem to be working on white clover, but you must remember that there are a great many blossoms for each bee, and your bees are spread over a great many acres. You will see plenty of clover bloom yet, but somehow the bees don't seem to get any good from the last of it.

Convention Notices.

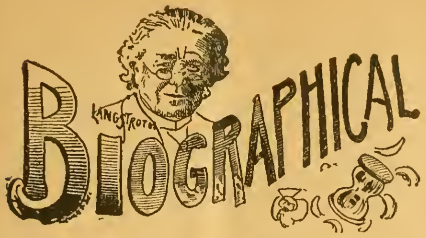
ILLINOIS.—The summer meeting of the Northern Illinois Bee-Keepers' Association will be held at the residence of O. J. Cummings, 2 miles northeast of Rockford, Ills., on Aug. 15th, 1893. A good meeting is anticipated. Everybody is invited. Come and see Mr. Cumming's methods of handling bees. B. KENNEDY. Sec.

New Milford, Ills.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land. FRANK BENTON. Sec.

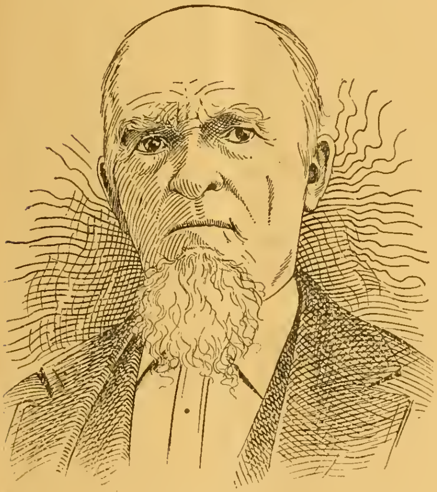
Washington, D. C.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.



DR. ELISHA GALLUP.

A quarter of a century ago the name of E. Gallup was well and favorably known to bee-keeping in two hemispheres. Learning that he is now residing in Santa Ana, Calif., we wrote him in regard to publishing his biography and picture, and as a result of that correspondence we have the great pleasure to present to our readers this week one of the once "old wheel-horses" of bee-culture, but just as he looks now.



DR. E. GALLUP.

It will be remembered that Bro. G. M Doolittle dedicated his book on "Scientific Queen-Rearing" to Dr. Gallup, who was Bro. D.'s friend and teacher in bee-keeping 25 years ago. He also uses what is known as the "Gallup frame," as Dr. Gallup was the inventor of a hive and frame which bore his name.

In the July number of the *Illustrated Bee Journal*, published by Mr. N. C. Mitchell, in 1870, at Indianapolis, Ind., we find the following in connection with a picture of Dr. Gallup, showing him as he looked 23 years ago:

Elisha Gallup was born on Aug. 22, 1820, in the town of Melbourne, county of Sherbrook, Canada East. His parents were born in Connecticut, on Long Island Sound. By occupation he is a farmer, with the exception of eleven years a miller. He removed to Wisconsin in 1859, and settled in the town of Metomen, Fond du Lac county. In June, 1865, he removed to Mitchell county, Iowa. And now, in the fear that we may not do justice, we will here introduce friend Gallup, and let him speak for himself:

"From my earliest youth I have been an enthusiastic admirer of the busy bee; in fact, my earliest recollections are of the bees and bee-hives. Often have I heard my mother say, if she lost me when a little fellow, she was sure to find me by the bee-hives. My intense desire to learn and investigate the bees in every particular has been such that I have dreamed of them at night, and thought of them in my waking hours to an almost absorbing extent, and to-day I am still a student; and I find those persons who proclaim themselves *finished*, in every branch, are the ones who in reality *know* the least.

"My early advantages were of a limited nature in the way of education—scarcely common-school advantages did I have. My first reading upon the subject of bees, was a small pamphlet written by a Mr. Weeks, of Vermont, which abounded in errors. My next was a work by Mr. T. B. Miner. I picked up my first real insight into the true system of bee-keeping from an old German, by the name of Wellhuysen. He made 125 colonies from one, in two seasons. And here I will remark, that I have been suspected of getting my knowledge upon the subject of bee-culture from Mr. Langstroth's work; but to settle that matter quickly and satisfactorily, I have never been known to quote from Mr. L.; neither could I have done so, from the fact I had it not to quote from. Once I remember to have had the privilege of skimming through it one evening, at the house of a friend, and that was merely to see if there were any new ideas put forth.

"Eight years ago last season (in 1861) I obtained my first movable-comb hive. My progress from that time I felt was rapid, from using a glass observatory hive of one single comb, for several seasons in Canada, of my own getting up. In my opinion, the movable-comb hive is very far superior.

"Mr. Quinby's first edition of his book struck me as being excellent; and when I saw an advertisement of his second edition, knowing that he had the advantage of the movable combs, I looked forward with confidence, and expected to see some questions fully discussed by him, which I considered of vital importance; and when I obtained the book, and found that he had almost stood still, and those questions not even mentioned, I was disappointed in the work, and this determined my course to some extent.

"For the purpose of fitting myself to appear before the reading world, I attended writing school, so as to accomplish myself in at least writing a legible hand. This was in the winter of 1865-66. As you say you are somewhat familiar with my writings, I leave you to judge of my success. My disadvantages at my time of life I fully appreciated; but being a man who has the fortitude to not look back when the hill has once begun to be climbed, my ambition and energy kept me ever on the onward path. I commenced first to write for the AMERICAN BEE JOURNAL, and to-day my private correspondence would fill a goodly-sized volume, of which I am proud—with innumerable testimonials from different parts of the United States and Canada, and from those who were entire strangers, which enhances their value, being assured it is not flattery."

Orchard, Iowa. E. GALLUP.

Having read something of the early days of the Doctor, we now turn to a letter we received from him a short time ago, and which tells something of his life at the present time:

SANTA ANA, Calif., July 20, 1893.

GEORGE W. YORK & Co.—

Dear Sirs:—I have but very little time at command now to reply to your request, but I send you a photo which I had taken about three months ago. All my friends say it looks older than I really do. Every one says that I hold my age *remarkably*. I know that many a young man does not show the activity that I do.

Of course I am not in the bee-business now, but I still take a great interest in the business, and when I see a couple of boys managing an apiary and taking out 20 tons of honey this season, and others in proportion, it makes me sort of hanker after the bees as of old.

My second wife died last March, and left me with three little ones—the oldest six years, and the youngest two years—and I am caring for them without the assistance of a woman. I will be 73 years old the 22nd of next month, and I am still strong and hearty, and, to all appearance, good for some time yet.

I left Iowa completely broken down, both mentally and physically, and I have regained both in this grand and glorious climate. I was fully determined to go into the bee-business here, and did make a start, but the demand for my services as a hygienic and common-sense Doctor has been such that I *could not* get out of the business, and to carry on the two was impossible.

I feel now that I *must* live to care for my little boys and girl. They are the comfort of my old age.

DR. E. GALLUP.

While we have not the pleasure of a personal acquaintance with Dr. Gallup, nor have many of the present readers of the BEE JOURNAL, yet there are those who will remember him and his interesting contributions to the bee-literature of 25 years ago, and they will now be led to recall the memories of other years when progressive bee-culture was just beginning to take form. Our younger readers, with ourselves, are glad to learn more of those who helped the cause of bee-culture in its early and struggling days, and thus all will be profited and entertained by reading our department biographical in this number of the BEE JOURNAL.

"**A Modern Bee-Farm** and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the BEE JOURNAL for one year, for $1.70.

IN SUNNY SOUTHLAND

CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

Things We Ought to Know.

We ought to know that queenless bees nearly always build drone-comb.

We ought to know that it stimulates a colony to get to build some comb.

We ought to know who it is that can get the drones all out of a strong colony the first round.

We ought to know the color of that person's hair that can always find all the queen-cells in a strong colony the first round.

We ought to know that colonies with young queens are less inclined to build drone-comb than those with old queens.

We ought to know that broken pieces of sections are the best things out to keep records on the nuclei.

We ought to know that bees, in one sense, consider themselves queenless when they build cells, and in natural swarming they seem to know that the colony will be left queenless, and they build cells to that end.

We ought to know that rearing queens at any season is only forcing nature, and that all the cells are built naturally.

We ought to know that nature has taught the bees that the best thing to do is to rear a queen as soon as possible after they find they are queenless.

We ought to know that bees in their great hurry to get a queen often make a mistake and start to rear a queen from a larva too old, and, if allowed to hatch, will make a faulty queen.

Queen-breeders ought to know that they should "proof-read" their queen-cells before they are sealed, and not allow a cell to be used that is started from such a larva.

We ought to know that queens reared in good, strong queenless colonies are just as good as any as that are reared naturally.

We ought to know that there is a great difference in bee-keeping in the North and in the South. For instance, dead brood will cause *foul* brood in Canada, when it will not, nor cannot, in Texas.

We ought to know that the only way to keep drones successfully for any length of time we must keep them in queenless colonies.

We ought to know that when the bees begin to lead the drones out, or pen them off to starve, they are of no more good. JENNIE ATCHLEY.

Scarcely Any Rain Since May.

MRS. ATCHLEY:—We have had scarcely any rain since May, and bees are getting no honey, of any account, and I shall be glad if mine get stores for winter. F. O. BLAIR.

Trinidad, Colo., July 24, 1893.

When to Transfer Bees.

MRS. ATCHLEY:—How late can bees be transferred? I have some bees in rotten box-hives, that I wish to get out. How late can bees be transferred profitably? H. L. HARGRAVE.

Netta, Tex., July 18, 1893.

Friend H., my best time to transfer bees from box-hives is whenever I find them in such. I fear that you have in mind the old way, called "driving bees," that is, run them out into a clean, empty hive without combs or honey, which is not a good way all seasons of the year. You may transfer at any time when warm enough for bees to fly; but if bees are not gathering honey, you would better work in a tight room, and carefully secure all their nice straight combs into your frames, and if they have enough where they are, put it with them.

"It Takes a Lazy Man to Keep Bees."

MRS. ATCHLEY:—I suppose the majority of the readers of the BEE JOURNAL, who are practical bee-keepers, on seeing the above heading, will think, "That fellow doesn't know anything about bee-keeping." And so did I think the same way, when I received the compliment. Some four or five years ago I went to see a friend who is a very enthusiastic and industrious fruit-grower. When he showed me the different varieties of fruit and his methods of cultivation, I noticed that he also had a good locality for bee-keeping, and therefore asked him, "Don't you keep bees?" He replied very quickly, "No, sir! It takes a lazy man to keep bees!"

Now I wish to say that there are many persons that think as my friend did, even such as use honey on their table, and can see thereby that there is a much finer article produced, and in a more marketable shape now than it was years ago when the brimstone pit was yet reigning.

Yes, there are yet many persons who don't know, up to this date, that bee-keeping has become an important branch of industry. They think that all one has to do, is to lie down somewhere in the shade at swarming-time, and watch the swarming of the bees, and to hive them if a swarm should happen to issue; then in the fall, to attend to robbing or brimstoning some of the bees in order to get some honey. They don't consider how we obtain honey in such a nice shape. They don't know that in order to produce a good crop of honey the bee-keeper must be on his guard almost the whole year around for that purpose. They think that honey should be still much cheaper than it already is.

When I sold some honey in the market at New Albany, Ind., some years ago, at a price it was bringing then, a woman asked me, "Why is it that you always sell honey at such a high price? You bee-men have no work with your bees, all you do is to rob the honey from them in the fall!" Such a class don't take into consideration that our practical, movable-comb hives, which are generally used at present by all progressive bee-men, will necessitate more outlay than an old soap-box, nail-keg, or some hollow log. Then, after we have our bees in good, movable-comb hives, there are numerous other articles and supplies needed to successfully run the business; besides, as I said before, one has to be on guard, and devote much of his time to the business, if he intends to have his efforts crowned with success.

If one has in charge only 50 colonies of bees during a good honey season and swarming time, he will soon find out whether his bees will give him much of a chance to be *lazy*. Such ideas, and the belief that most of the honey in the market is adulterated, are great stumbling-blocks to our business, and as most people outside of the bee-keeping fraternity do not read bee-papers, it is difficult to educate them. MAXIMILIAN.

Shawnee, Kans.

Bee-Keeping in Louisiana.

We have had a good many reports of late from our many customers, and they say since June 25th the bees have been rolling in the honey. We, ourselves, cannot complain, as we extracted from a few colonies to see what the yield would be, and from eight we got, on an average, 65 pounds per colony. We will get from those same colonies at least 50 pounds yet, making 115 pounds each—not bad for this season. As the spring was wet and cold, bees gathered but little honey, only sufficient to build up—no surplus.

We handle nothing but the Italian bees, and have had none other since their introduction in 1872. We consider them the best honey-gatherers, and as to docility, etc., we never use a bee-veil in the apiary. In going over our apiary the other day we noticed two queens quietly laying side by side—mother and daughter. Of course, to our old, experienced apiarists, this is nothing new, but it only goes to show that bees know when a queen is no longer fit for service, by superseding her with a young queen.

THE P. L. VIALLON MFG. CO.
Bayou Goula, La., July 12, 1893.

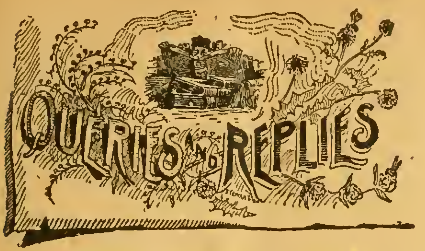
LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Laugstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported	$8 75
W. A. Fee, Rockport, Ind	25
Wm. Essieman, Garrett, N. Y	25
Bee-Keeper, Johnstown, Pa	25
Total	$9 50

Great Premium on page 189!



Using Foundation Starters with Separators.

Query 883.—1. Is it necessary to place foundation starters in one-pound sections with separators? 2. If so, why?—L. W.

1. To be sure.—J. M. Hambaugh.

1. It is desirable. 2. It secures nicer combs.—A. J. Cook.

1. Yes. 2. So the bees won't build crosswise.—C. C. Miller.

1. I think so. 2. To insure fine, straight combs.—R. L. Taylor.

1. I should think so, but I have never used separators.—Mrs. L. Harrison.

1. Yes. 2. The bees will begin sooner, and make a better job.—E. France.

1. Yes. 2. Bees will work sooner, and have more perfect combs, etc.—P. H. Elwood.

1. Yes, sir; I would use the foundation starters when separators are used.—J. P. H. Brown.

1. It is not absolutely necessary, yet I would not think of doing without them.—H. D. Cutting.

1. Yes. 2. So the bees may build combs exactly in the center of the sections.—Dadant & Son.

1. Yes, in my apiary. 2. Because it is the only way I can produce first-class honey.—Eugene Secor.

1. Certainly. I use full sheets of foundation. 2. To secure straight combs.—J. H. Larrabee.

1. It is not necessary, but insures starting more promptly at the commencement of the season.—S. I. Freeborn.

1. Yes. 2. Otherwise the combs might be built across the sections, and fastened to the separators.—G. M. Doolittle.

1. Yes. 2. So that the bees will start the combs straight. Also, because they will begin more readily to build comb.—M. Mahin.

1. Yes. 2. Without the starters the separators are of little value. If I were to part with either, it would be with the separators, as I have found that they build just as straight without as with them; but without, they build more unevenly.—Jas. A. Stone.

1. Yes, sir; and full sheets are better yet. 2. If nothing of the kind is used, most of the comb will be attached to the separators, whether of wood or tin.—C. H. Dibbern.

1. It is necessary to have starters of foundation or comb. 2. Because if no starters are used a large proportion of the combs will be attached to the separators.—James A. Green.

1. Most certainly it is. 2. "Why," to induce the bees to start the combs in the center of the sections. There is nothing like a "starter" to set bees promptly to work.—G. W. Demaree.

1. Yes. 2. Without it, bees will often hesitate in entering the super at a time when "time is money." With me, foundation would be cheap at double the price.—Will M. Barnum.

1. Yes. 2. To have the septum in the center of the section; to have the combs built straight in the sections; and to save honey used by the bees in wax-making.—Mrs. J. N Heater.

1. Yes. 2. In order that they may build the combs straight, and not fasten them to the separators. Also, that they may go to work in the sections promptly and not neglect them, and devote their time to swarming.—Emerson T. Abbott.

1. Yes, I would always use starters, and deem it necessary. 2. You can have the bees build where you want them to with starters, and they sometimes take a notion to build two combs instead of one, and often have ugly sections when no starters are used, even with separators.—Mrs. Jennie Atchley.

1. Yes, most assuredly; and for my self I get the best results only by the use of both sections and frames filled with foundation. 2. Separators do not start the bees into sections, but only compel them to build regularly. Starters, or full sheets of foundation, should be used both to entice the bees, and to force them to build true.—J. E. Pond.

1. In order to compete with others it is necessary to avail ourselves of every possible favorable condition to produce the most and the best article; the ones that so do need fear competition the least. A full sheet of the lightest foundation in the sections is the more favorable condition to secure most of the best honey.—R. F. Holtermann.

CONTRIBUTIONS

Foul Brood — Something More About Its Cause and Cure.

Written for the American Bee Journal
BY CHAS. F. MUTH.

I admire the zeal of Mr. McEvoy in his effort to root out the dread disease, foul brood. His experience, however, is different from my own, and I will state some of my experience.

A good many bee-keepers remember our National meeting at Ontario, when Mr. Jones recommended the starving process for the cure of foul brood, and I doubted his ability. I offered a wager of $50, the money to go to the Langstroth fund, if Mr. Jones would cure, of foul brood, a colony I should send him. Prof. Cook was favoring Mr. Jones on the subject, and I proposed to send a colony to him for treatment on the Jones plan, which he refused, for fear that foul brood might be introduced thereby into Michigan.

Since I read Mr. McEvoy's articles I am convinced more than ever that neither he nor Mr. Jones were dealing with the same disease that I am acquainted with. I have transferred from box-hives and gums to frame hives, very many colonies—very likely several thousand—and I remember a case where we had thrown in a heap, or a box, the waste comb and drone-comb containing larvæ of all ages. When I visited the party about a week afterwards, I was surprised at the stench emanating from the putrid drone-larvæ. A dearth was prevailing, and thousands of bees were covering the putrid mass. No foul brood was transmitted. I remember other similar cases with no bad results.

For many years, during the months of March and April, I bought, from bee-keepers in Mississippi and Arkansas, 200 or more colonies of bees, and had them shipped to me by steamer, 25 or 30 colonies at a time, and the shipments about a week apart, so that I could give them a prompt overhauling and cleaning upon their arrival. My friends were to send me colonies strong in brood—I cared nothing for their old bees, and advised them to exchange places with their weakest colonies, so as to let the old bees fly over to them. Several times they did not follow my advice, and shipments arrived with two-thirds of the bees and all the brood in capped and uncapped cells smothered to death. After the hives were cleaned out, the greatest part of the cleaning of the combs was left to the bees. The stench emanating from some of the hives became so strong that it could be smelled distinctly when walking about the apiary.

As the cleaning of the cells progressed, the stench ceased, and the combs became refilled with healthy brood in due time. However, the saying that there is no rule without an exception, proved true here. In a number of hives healthy brood became diseased, and when uncapping some of the suspicious-looking brood-combs, they would emit a blackish fluid with a strong stench. I kept exchanging the worst of these combs for clean ones, hoping that a cure might be effected thereby. In some cases I removed all combs containing capped brood, leaving them the combs with eggs and healthy-looking larvæ. But—there was no end to my foul brood.

This was in the good old times before foundation had made its appearance, and when every good bee-keeper had a good supply of empty combs on hand. I then removed every comb containing brood, and replaced them with clean, empty combs, when my success was complete, and no more of this (mild type of) foul brood. I had disinfected nothing. The removal of all combs containing brood had been my sole remedy. The disease had been caused by the rotting of uncared-for brood, and is very likely the same disease that Messrs. Jones and McEvoy are acquainted with.

The genuine, or virulent, foul brood, the acquaintance of which I made afterwards, is certainly *not caused* by the rotting of uncared-for brood, as Mr. McEvoy believes, although his idea is supported by several good bee-keepers in Germany. They are wrong, to the best of my judgment.

The genuine foul brood spreads by spores only, and is very likely an imported disease. It is of an entirely different, insidious character, and more stubborn to fight than the above-described mild type.

My apiary had been free from foul

brood for all summer, fall, and the following spring. During spring, however, I bought some bees and placed one hive on a plank above which an infected hive had stood the previous spring. When treating it, I had, many times, by the means of a tooth-pick or match, pulled out diseased larvæ and dropped them on the plank at my feet. When done, I would scrape up the larvæ and disinfect the place with salicylic acid. So I had placed a hive of bees on the plank, the entrance facing the spot upon which larvæ diseased with foul brood had been dropped about 12 months previously. About two weeks afterwards I discovered foul brood in that identical hive. It had just commenced, only a few of the uncapped larvæ being affected. The colony was cured with two sprayings of salicylic acid. There was no other case of foul brood in my apiary that summer.

My disinfection of the plank had been, perhaps, imperfect at one time or another, and spores of the disease (bacillus alvei) were hid among the fissures of the wood, and carried along on the feet of the bees running over them, and dropped in brood-cells where they came in contact with larvæ, and caused again a new outbreak of foul brood. I admit that a conclusion like the above is not infallible, but my observations in similar cases, which I can state hereafter, convince me that it is correct.

Cincinnati, Ohio.

Why Do Some Suffer from Bee-Stings and Others Not?

Written for the American Bee Journal

BY G. P. HACHENBERG, M. D.

The above is the subject of an article published in the AMERICAN BEE JOURNAL of June 1st. The writer propounded the question, but failed to answer it. He simply tells us why some people are more likely to be stung by bees than others—a subject that hardly needs discussion.

The tolerance created by a bee-sting involves a principle that is at this time the most intricate subject now under investigation by the *savants* of the medical profession. Koch and Pasteur have made themselves famous in the investigation of this principle, almost as much so as Jenner has by his discovery of cow-pox inoculation. But it is not only by the inoculation from the bee-sting, vaccine virus, hydrophobic extract, or, indeed, almost any poison, as in hypodermic injections of opium, chloral, arsenic, that a tolerance is established; but nature itself will often produce it spontaneously by the development of a disease, that hardly ever can be reproduced in the same subject again, as in typhoid fever, measles, small-pox, yellow fever, etc.

It is under this physiological principle that a tolerance from bee-stings is established. I know this to be so from my own personal experience. When I had first to do with bees, their stings put me in the greatest agony. The stings were not only exceedingly painful, but were followed with horrible tumefaction—about the face in particular.

But I noticed that these mishaps with me in the apiary, in course of time, became less, both in pain and swelling. Now, after receiving (since I became an apiarist) a couple hundred bee-inoculations, the stings nearly lost their poisonous effects; indeed, so much so, that I finally got to be as careless about their stings as I was timid and over-cautious at first.

Another question of interest in my experience is, that the bees molest me greatly less now than they did when I first worked with them. Do they know me as a dog knows his master, or do they know that I am iron-clad against their stings? I am inclined to believe both.

But let me take an ill-smelling, oleaginous "nigger," or a Dutchman saturated with beer, whisky and tobacco, into my apiary, and the bees are sure to get rid of the offensiveness without much delay; and often I have to march with him as a penalty for his introduction into their sweet, pure and sacred realm.

The olfactory of the bee is exceedingly sensitive; by it they find the honey-flower, know the members of their own family, the intrusion of a robber; and when you are once stung by a bee, every other fighting bee aches to give you another punch. And by some mysterious contrivance, it appears when you are once iron-clad from their stings, and you behave towards them as a *gentleman*, they soon find it out and molest you hardly ever.

I am firmly under the impression that the bee-sting inoculation will some day prove a cure or prophylactic of some formidable disease—it may be hydrophobia itself—where the protection of the system is rendered by substitution.

Austin, Texas.

Experiments in Apiculture — Something About Them.

Written for the "Bee-Keepers' Review"

BY W. Z. HUTCHINSON.

All of our bee-journals are published simply to tell of new things, of those not before known, or, at least, not generally known. From whence come these facts? From experience; from experimenting. Scattered all over the land are bee-keepers. In the spring each one starts in with a more or less definite plan of how he will manage his apiary that season, but many times during the season must he make a choice of several different methods. Some of them may be of minor importance, others may make all the difference between a fair crop and being obliged to feed the bees for winter.

Suppose the bees are in the cellar; how early shall they be taken out, shall they be protected when taken out, shall they be fed to stimulate tkem, shall swarming be allowed, shall foundation be used in the brood-nest in hiving swarms, shall there be an effort to make the number of unfinished sections, at the end of the season, as small as possible, or shall abundant room be given to the end of the harvest, and then feeding back be resorted to for completing the unfinished sections? These, and many more questions, would bee-keepers like answered.

The trouble with the average bee-keeper is, that he is likely to choose some one of these plans and carry it out with his *whole apiary*. No comparative work is done. If he gets a good crop with the plan adopted he reports it as a success. Perhaps some other plan might have been *more* successful.

A writer in a recent issue of the AMERICAN BEE JOURNAL, in criticising my advice not to hive swarms on drawn comb at the height of the honey harvest, when working for comb honey, mentioned two or three instances where he had done so, and, by the way, one was where he had put two swarms together, and secured good results. If he tried hiving swarms on starters only in the brood-nest, he does not mention it. If he did not try it, he does not know that it would not have been more profitable. Mr. Doolittle, a few months ago, mentioned in the *Review* an experience of his in stimulative feeding in the spring. A part of his apiary was fed and went booming ahead at such a rate that it was a great temptation not to feed all of the colonies. As a result of resisting the temptation, he learned that in that instance, at least, not much was gained by the feeding. It is in such ways as this that experiments ought to be conducted.

It is not every bee-keeper that is "cut out" for an experimenter. It needs a person of a judicial cast of mind, one that is perfectly willing, so to speak, that an experiment shall prove the truth. Too many of us are inclined to make a decision *first*, and then go to work and try to prove what we already believe. This will not answer. An experimenter ought to be wholly disinterested in the results, that is, be willing that an experiment proves either side of the question.

It costs money, time and bees to experiment. The average bee-keeper cannot afford to spare much of these without a reasonable supposition that there will be a money return. If he desires to experiment he is confronted with the query, Will it pay? Unless there are fair prospects of a money return, it must be abandoned.

The foregoing are not the only reasons why it would be advisable to have competent bee-keepers employed by the government to take charge of experimental apiaries. There is another reason that perhaps but few have thought of viz.: that such a person would be clothed with authority. What he said or did would be looked upon with respect by the outside world.

For instance, when queen-bees were thrown out of the mails, it was mainly through the efforts of Prof. Cook that they were re-admitted. Last year a duty was placed upon queen-bees imported into this country. Again it was through the instrumentality of Prof. Cook that this duty was removed. Prof. Cook told me himself that as an *individual* he could never have accomplished these results, but, as Professor of Entomology in the Agricultural College of Michigan, he was heard, and his arguments given consideration. Cases like these are liable to come up at any time, and a good man at the head of a State experimental apiary would be a power for good.

It seems as though no arguments are needed to show that an experimental apiary in each State would be a great benefit. We all know that there are many questions connected with bee-keeping that are unanswered, and that the correct answer to them would make of bee-keeping a more safe and profitable pursuit. Frank Benton writes me that there are about twenty different lines of experimental work that he would like to take up, in some of which he has already planned the experiments that he would conduct, and he considers some of them of more importance than his climatic mailing-cage and food for shipping queens, but he has no opportunity to make these experiments at present.

Not only this, but there are new problems continually coming up that will need to be solved. One man, working in a careful, methodical way, having bees, appliances and means at his command, can do more to settle the knotty problems of apiculture, than can all of the bee-keepers of the State working in a hap-hazard manner. If each State and Territory had an experimental apiary manned by a competent person, and the reports of the work published in the journals, so that bee-keepers could read and criticise and suggest as the work is going on, bee-keeping would receive another boom, and such a one as would help those already in the business.

The *Review* is going to work to try and have bee-keeping recognized at the State Experimental Stations. Each State and Territory receives from the General Government $15,000 annually to carry on experiments in agriculture, horticulture and the like. You do not need to be told that bee-keeping has been almost entirely neglected at these stations.

Dr. Miller gives as reasons for this neglect, that the directors of the stations, or the State Boards of Agriculture, are uninformed in regard to the importance and needs of apiculture, and that bee-keepers have been too modest in asking for their rights. I think he is correct. I feel confident that the bee-keepers of any State can have an experimental apiary if they will only go to work to secure it. But, as I said last month, passing resolutions and appointing committees at conventions will not do it; there must be some *work* done by some one. The resolutions and committees are all right as preliminary moves. The State Board of Agriculture will listen to a committee from the State Association of bee-keepers when it would pay very little attention to individual requests. Put the right men on the committee —men of experience and good sense.

Another thing: Raise some money, even if you have to do it by subscription, to pay the expense of the committee in meeting with the State Board of Agriculture. Of course, the expense may not be very heavy, but the individual members of the committee ought not to be asked to bear it. Perhaps the funds of the Bee-Keepers' Union might be used to advantage in helping to bear the expenses of such committees. If the Union would bear half of such expenses, I believe it would be money well spent. What does its Manager and others think?

After a State Board has decided to use money for apicultural experimental work, let bee-keepers look to it, and look sharp, too, that the work is placed in the right hands. This is the most important point of all. Let the bee-keepers select the man. Perhaps it would be a good plan to select him by a vote at a meeting of the State Association. Let him be a practical bee-keeper, one who has produced some honey, and managed a good-sized apiary. There is nothing like actual work in a good-sized apiary to enable a man to comprehend what bee-keepers really need to know. Don't get some theoretical writer for the press. Get a man to whom bee-keepers will look with confidence. I could name half a dozen men in as many different States, who, I know, would fill the bill.

Flint, Mich.

[For editorial remarks upon this subject, see page 167 of this number of the BEE JOURNAL.—ED.]

Some Exceptions to General Rules About Bees.

Written for the American Bee Journal

BY H. F. COLEMAN.

Bees sometimes, it seems, delight in exceptions to general rules, and if we would be successful in their management, we should be acquainted with these exceptions.

I have observed that, as a general rule, bees will not swarm before capping one or more queen-cells, but they sometimes swarm before beginning a queen-cell.

As a general rule they will—if the weather is favorable—swarm in 24 hours after capping a queen-cell, but sometimes, even in favorable weather, they will not swarm for three or four days after capping the first queen-cell.

As a general rule, when the bees destroy young queens in the cell, they do so by cutting into the sides of the cell, but sometimes they destroy such queens by cutting, or working, off the points of the cell.

As a general rule, if an Italian queen

produces all three-banded workers, she is found to be purely mated, but it is sometimes found that such a queen will not produce a single queen that shows pure stock.

The last exception is one of most vital importance to beginners in bee-culture, and I sometimes think that the rule as to a tested queen should be changed so as to avoid mistakes on this line. As a matter of fact, a pure queen, purely mated, will invariably produce pure queens, and when the writer finds a queen that will not produce pure queens, he puts it down that she is either impure herself, or that she was mated by an impure drone. This being true, it follows that the first quality of a tested queen should be the production of pure queens, instead of three-banded workers. No possible harm could result from this rule, just as many queens would be sold, and in that case every tested queen, as far as stock is concerned, would do for a breeder, and would sell for a good price.

Much harm, in my opinion, has resulted to beginners in not knowing that some queens would produce all three-banded workers, and would not produce a queen that was fit to rear queens from. I had, in the beginning, a sad experience along this line, and know of others who had the same, and I now know whereof I speak.

Sneedville, Tenn.

Further Account of a Chinaman's Bee-Keeping.

Written for the American Bee Journal

BY WUNG LUNG.

Lassa tlime I talkee about my sugar-fly, my plartner, Mlister Mlufley, and lot of other things. Thissa tlime me tell you 'bout my cousin, and how I cure him of lumatism; I also tell how to sell sugar-fly sugar, and make heap money.

You sabbe lassa tlime me heap A B C scholar; now me full-fledged sugar-fly keeper. Mr. Mulphley call me "gladulate in skule of aplikultural sclience." I no sabbe him; but guess he mean I know heap lot about sugar-fly.

Now, you sabbe I catch sugar-fly two, tlee year ago. Flirst year I no make money off him; nexa year me now tell you what me do. July thissa year I have tlen hives; me extlact one ton sugar. Sugar-man in Slan Flancisclio say he give me slix clentee one pound for him. Me talkee him too muchee cheapee. Me wantee eight clentee. No sellee in Slan Flancisclio; me go home and makee sugar-fly sugar into yepyamsa—him heep nicee; Chinaman heep likee.

Me go Chinatown and see my cousin—him big mlerchant—and sell him yepyamsa 15 clentee one pound. One pound sugar-fly sugar make tlee pounds yepyamsa, and cost me flour clentee. Me do belly well not sell sugar for slix clentee. Me make 41 clentee one pound by making him into yepyamsa. Nlext year me try and make flour tons of yepyamsa. Pretty soon me belly lich and go black to China to see my wiffo.

Me tlink Mr. Lambler tlink me own an intlerest in that bleet sugar flactlory near where him lives. He might likee to know how to make yepyamsa; he will have to wait a long tlime, for me don't plopose to give the slecret away. If me flind him flooling 'bout here he will flind himself in a worse whirlwind than him got Ploflessor Clook and Mr. Hutchlinslon into.

At the end of my slecond year, me had 27 swarms in heep nice bloxes. Mr. Mlurfley call him in "pig-tail blox," wha' for, me no sabbe. Nexa year me try to have 100 hives; then me make heep yepyamsa. Mr. Mlurfley say belly good for me Mr. Cleveland get into offlice, for him big Mogul Cleveland won't have to protect my new Amelican inflant indlustry.

Me lookee bee-blook to see what to do with extlactor, when not used for honey-fly sugar, but could not flind anything in him. Me tell you what do. Me loan him to Jim Lee to make him washing nice and clean and dry. Extlactor heep fine to dry clothes in. Take washee out of tub water and tlow him into extlactor, turn handle, and pletty soon washee belly dry—water all fly from washee. Me tlink before long all Chinese wash-house have extlactor to dry washee. Me wish extlactor had platent on him, for me would become him agent, and sell heep lot to Chinese wash-house.

Me Slunday-school teacher talkee me one day that sugar-fly-bite heep good for lumatism. Slam Lee long tlime hap die in Slan Flanclisco with him 'tlism; so me catch one dozlen sugar-flies, put him in blottle, and take him to Slam Lee. Lee belly stliff, he no move 'blout for tlen year—him allee samee him hap die. When me go Slam Lee's house him sleep belly sound. Me tell young Sling (him Slam Lee's cousin) me make Lee heep well belly much quick—him walk belly fast, allee samee him no sick.

Young Sling say him heep glad; him say me make him cousin well him give me $100.

So me go up to sick Chinaman's bled, open him shirt and shake sugar-fly out of blottle on Lee's skin and put back shirt and blanket belly quick.

Slam Lee jlump up belly mlighty quick. Him get big move on him, as ploliceman say. Him yell and jlump allee samee him clazy. Chinaman come in flom stleet and belly much astonlished when they see Lee with big move on him. Lee lun ablout, upset flurniture, and tlear him hair from him pig-tail. Him fearfully clazy; me muchee sclared, for me thlinkee him mlight hap die, and ploliceman takee me to calaboosee. Pletty soon Lee lun out of housee into stleet with nothing on him but shirtee. Him allee time yell and tear him shirt and queue; big crowd gather, and hoodlum boy say, "See the clazy heathen with nothing on but a shirt and pig-tail, and him tlying to get them off as flast as he clan."

Lee was lunning in blizness street when ploliceman stop him and wanted to takee Lee to clazy housee. Jlust thlen a sugar-fly got out of Lee's shirt and blit ploliceman under him nlose. Ploliceman swore and jlumped worsee than him clazy with too muchee gin. One Melican man allested plolice offlicer for using heep bad cuss-word. Lee now lun home and get sting taken out of him.

Him soon all lite, and work in glarden. Young Sling glive me $100. Me belly much heep slatisfied with sugar-fly; make belly much money flom him.

Nexa time me tell you more what me do.

Slan Flanclisco, Claliflornia.

Notes from Utah—Winter Losses, Swarming, Etc.

Written for the American Bee Journal

BY E. S. LOVESY.

The Bee-Keepers' Association of Salt Lake county is holding meetings through the county this year, and among other questions considered is the winter question. We are trying, if possible, to arrive at some satisfactory conclusion as to the best method of wintering the bees. The winter question here causes more loss than any other single question. I have interviewed over 100 bee-keepers on this subject, and in going through the county I have collected some very interesting points. I also have information from other parts, which I will write about later. We hope to be able to adopt some plan to protect ourselves from those heavy winter losses.

INTEMPERANCE THE CURSE OF THE AGE.

I very much admire the remarks on the liquor question on page 745. I look upon intemperance as the curse of the age. It is the cause of nine-tenths of the crime, misery, poverty, etc., in our fair land. If this rum fiend could be abolished, it would be a happy land. It fills the jails, thereby taxing the industry of the people. You can scarcely conceive of the wreck and ruin caused by the drink demon. He robs his victim of his reason, his health, wealth and happiness; takes his home, and those that are dear to him, and even his life must pay profit to this rapacious monster—intemperance.

While the people here are sober and industrious, as a rule, our bee-keepers are especially so. I do not know of one intemperate bee-keeper. The bee-hive is Utah's emblem, and many of her people pride themselves in being called "a working bee in the hive of Utah."

There seems to be a fascination about the little, busy bee that tends to create a soft, kind, refining influence, which helps the possessor to become satisfied with himself and all that he may come in contact with. Thus they tend to calm, and sooth, and develop a sympathetic disposition. They cause many a brilliant star to shine, which might otherwise remain in obscurity. I might mention dear old Father Langstroth, and Mr. Doolittle, Mrs. Atchley, and many others. It is seldom that this class of people, after becoming acquainted with their little friends, the bees, like to part company with them entirely. When the time comes that such people may have a strong voice in our government, the intemperance problem may possibly be solved.

THE SWARMING PROBLEM.

I have read and heard considerable of the swarming or non-swarming problem of late. In my own apiary the bees do not swarm. This is the fourth year since I have had a swarm come out, on the natural plan. While I do not pretend to have solved any problem, it seems simple and easy to avoid natural swarming, if you have the bees shaded a little, and work for extracted honey, or part comb honey. I do not think that natural swarming can be prevented entirely, if you work for comb honey exclusively.

THE ANT TROUBLE AMONG BEES.

I have received several communications from sympathetic bee-keepers on the ant question, for which I wish to return thanks. It seems that I created a small breeze on the ant question lately. I find that they are troublesome in many parts of the country, as well as in Utah. I have out-generaled those pests at last. I will tell of it sometime. I am very sorry if I have alarmed Dr. Miller so that he will not come to Utah. The Doctor has many admirers here, and I hope he will change his mind and conclude to pay us a visit. I can assure him that we have one of the best and healthiest places in the United States; and who is there that has not heard of Utah's famed honey and potatoes? If the Doctor was here now to enjoy our pure mountain air, and the nights we have, he would not want to go back to Illinois very soon. Hot nights, such as occur in the East, never were known here. Then, we have no terrific cyclones or floods, but we have our renowned Salt Lake—a ride out to it, and a bath in its waters, will cause even the invalids to rouse up and eat a square meal. The truth is, all Salt Lake needs is to be seen and known to be appreciated.

Salt Lake City, Utah, July 24, 1893.

A Review of a Chapter by the New Prophet Samuel.

Written for the American Bee Journal

BY THOS. JOHNSON.

On page 690 appears a chapter written by the "Prophet Samuel," and I believe his last name is Wilson. In the first verse he says that I first reported that I had taken 40 pounds per colony (correct prophet). Then he proceeds to tell just how much honey I got—in his mind. Now, in order to stop the prophet from going back and repeating it the third time, as this makes the second time for him, I will say that on June 1st I had 60 colonies of bees, 40 colonies I run for comb and extracted honey, and 20 I cut up into nuclei for queen-rearing. On Aug. 1, 1892, I cleaned up and took all the honey that was marketable from the bees, and my scales indicated 2,800 pounds of comb honey and 1,100 pounds of extracted.

About Sept. 20, 1892, I cleaned up again, and took from them 300 pounds of comb honey, and 600 pounds of extracted, all in marketable shape. All sections that were not three-fourths or more capped were kept for family use, or returned to the bees last spring, and are not estimated in the above figures. Since Aug. 1, 1892, to the present date, I have sold 3,100 pounds of comb and 1,600 pounds of extracted honey, and have a little honey left.

The reason I had taken the 40 pounds per colony, on an average, up to July 18, 1892, was that I had to do it to get empty supers to make room for more honey.

In the second paragraph of his article the prophet says that Frank Coverdale did that well. Yes, sir; Frank Covercale did well, as he had a splendid fall flow in his neighborhood. In the same paragraph he says that Oliver Foster said Mr. Staininger's 170 colonies gathered 12,700 pounds of honey, and quotes a great deal, and tells about his foot-power saw and a pyramid of honey as high as the tower of Babel—all in glass-houses surrounded by mountains of snow. It was so long and flourishing that I cannot say whether he mentioned in it that Mr. Staininger was a jeweler by profession, or not. He "winds up" by looking out of the window, and there were 230 colonies of bees, and it must not be forgotten it was one of the off years, for the balance of his apiary, as bloom only came for the 170 colonies, and the 230 colonies saw nary a blossom—all they had to do was to sit around and sing the old familiar song, "Way Down in Tennessee," where the Prophet Samuel lives.

The last verse of Samuel's chapter is pretty hard to swallow, and keep it down, but here goes. "Johnson warns me," etc. Turn back and read again. It was the otner fellow, and I just made mention of it, and says my bees gathered the honey from "prairie grass," or something to that effect, and says Mrs. Atchley will want to go up to Iowa. Should Mrs. Atchley take the prophet's advice, and come to visit me, I will bet an Iowa bumble-bee against a Texas grasshopper that Mrs. A. will enjoy the visit, as well as myself, and she will find as free a heart in me as in any man that ever trod the Kentucky blue-grass, and we may talk over the times when Mrs. A. was a small girl and I a chunk of a boy dressed in blue or gray.

Well, after the prophet worked and waxed hard to convert the Hawkeyes (except Thomas, for he is a contrary fellow, and always siding in with Peter), he took the flier, skipped over to California to convert the heathen Chinese who keep "honey-flies," and tells them that they will have a good honey-flow from white clover—even that plant does not grow west of the Rockies. In western Nevada, around Reno, the bees will fly away to the Eastern States—east of the 98th meridian—capture all the nectar from white clover before the Yankee bees get up, carry it over to Navada and put it into their hives, so that Mr. Doolittle and others won't even get a smell! and while they fly over Iowa and Minnesota they will be so thick that their wings will fan out all the nectar so that friend Secor, of Forest City, will be "left" just as badly as his friends in the New England States! Think of it, and repent before it is too late! All this I find written in the new "Book of Samuel," and surely will happen this very year, because the prophet says so!

On his return trip he stopped off at Coontown, told Thomas to come hither and put his finger into the clover blossom, and be not deceived; so Thomas stuck his finger where the prophet directed, and the blossom was as dry as a bone. Now go and teach likewise. So Thomas was converted to the prophet's faith.

Now it came to pass, after some days, that Thomas began to teach as the prophet directed, and went up to Welton and Tipton, saw N. Staininger, and began to do as directed. Mr. Staininger told him that in the fall of 1892 they had one of the best honey-flows he ever saw, and the prophet said from white clover. All this is true, because it is recorded in the "Book of Samuel," and written by the Prophet Wilson.

Dr. Miller needn't be riding around Marengo in his one-horse chaise, laughing up his sleeve, because all the quinine you can get to issue won't stop the "honey-flies" from Nevada sweeping the whole platter, for Marengo is marked in the prophet's line, and surely the Doctor will catch it. He had better flee to "Egypt," and take his bees with him, for there will be a good honey-flow down there, because the prophet says so.

Coon Rapids, Iowa, June 6, 1893.

[We think that with the above we had better drop the discussion of honey-prophecies, unless Mr. Wilson is willing to explain just *how* he can foretell a honey-flow, or the probable failure of the honey crop, as he claims to be able to do. So far there has been very little of value in what he has had to say, and unless something definite is forthcoming, we shall decline to publish anything further on the subject.—Ed.]

OUR LETTER BOX

REPORTS, PROSPECTS, &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Rejoicing Over the Harvest.

Bees are doing finely here this season. Although we cannot get the amount of honey that the western States do, I think that the honey of Vermont is excelled by none. Bee-keepers are rejoicing over the bountiful harvest. W. G. Worden.

Guilford Centre, Vt., July 30, 1893.

No Honey Secured Yet.

We have had a long dry spell, and the bees are living on what they get, and that is all. We have not had a pound of honey this summer. The bees did not swarm until late, then I got 5 swarms from 42 old colonies. It rained last night, and I trust we will get a fall crop of flowers, and that will give us a fall crop of honey. Golden-rod is just beginning to show bloom, and it may give some honey this year. I have watched for two years to see the bees work on the golden-rod, and I never saw a bee work on it. Why it was I could not tell. Who can?

Udall, Kans., July 27, 1893. S. Stout.

Wolfberry and Alsike Clover.

I send a twig from a shrub that grows in abundance here, and it has almost as many names as there are people here. My wife calls it "wild snow-drop," as it resembles the snow-drop of our flower gardens. It grows about 2½ feet high, and has clusters of small white berries. It is a great honey-producing shrub or plant. When it blooms it is literally covered with honey-bees. It does not produce much, if any, pollen. Please give the name of the shrub. I cannot tell the quality of the honey from this plant, and shall not be able to test it this year, as there are great quantities of wild morning-glories here, and the bees work on that every day.

I also have a field of Alsike clover that has been in bloom for the past three weeks, and is as fresh to-day as it was the first week, and I go into it every day to see the bees work on it. It is like being in the midst of a swarm that has just issued from a hive, but if I find no bad flavors in this mixed honey, I shall conclude that the honey from this nameless plant is good.

I work on the one-pound section plan, and have never had bees store as much section honey since I have lived in this county as they do this year. If we can have two months more as good as the last month has been for honey, I shall expect much from my bees. S. B. SMITH.

Keeville, Minn., July 15, 1893.

[The plant is called *symphoricarpos occidentalis* by botanists, and is commonly known as "wolfberry." It is very closely related to the snowberry of cultivation, which is also found wild in Minnesota.—ED.]

Shoe-String Binder—Poor Crop.

Certainly no bee-keeper can afford to do without so much instructive and helpful matter as the BEE JOURNAL contains, and at so insignificant a price.

I wonder how many of the readers have learned how nicely, quickly and cheaply they can bind their copies of the BEE JOURNAL, by Dr. Miller's simple, home-made binder, which employs common shoe-strings? I have Vol. XXXI bound by this method, and what a pleasure it is to turn from page to page, just as in any other good bee-book!

As to the honey crop, it's a complete failure here. From 30 colonies I have obtained less than 20 pounds of surplus honey. W. A. CAMPBELL.

Doogan, Ga., July 28, 1893.

The Season, Wintering, and Alsike.

I have 96 colonies of bees, an increase of 36 colonies this season. Bees are doing splendidly here. I have 21 Langstroth hives, and 21 of Hill's double-walled winter hives, and for out-door wintering in this locality, they are ahead of any other hive I ever used. The surplus arrangements I don't like. If they can be made so the supers will work on the same plan as the dovetailed hive, they would be the hive for out-door wintering.

To any one in Southern Indiana who is thinking of chaff-packing, cellar-wintering, and all such things, I will say, have plenty of bees and honey in the hives, and keep them in a dry place, and there isn't any cellar that can give as good a showing. Try it, and be convinced. My loss never has exceeded over 10 per cent., and I winter my bees out-of-doors, altogether now.

The Golden Italians seem to be "all the go" now. For beauty, 'tis well, but for honey give me a cross between the leather-colored and the native black bees. I have tried them side by side for years, and know whereof I speak. I have under my control 225 colonies of bees, and a great many of them are Italians, but the hybrids and Carniolans gather a great deal more honey than the Italians.

Bee-keepers of America owe Mr. G. M. Doolittle more than they can soon pay, for his book on queen-rearing. Who can fill his place when he is no more? The snows of age fall lightly, but none fall heavier, for they never melt. But may the All-Wise Father spare us such men as Doolittle, Miller, and a host of others for many years, is my wish.

Does Alsike clover make good pasture for hogs? I have my hill land in red clover, and if I can change to Alsike I will be pleased to do so, providing it is as good for hogs. E. W. MOORE.

Seigerts, Ind., July 21, 1893.

Another Cause of Foul Brood.

I said some time ago that I would give the origin of foul brood. It is caused by a fly depositing eggs in the brood-cells when the larvæ are young. Look out for a very small fly. C. P. HEWETT.

Kingston, Wis., July 28, 1893.

Season Better than the Average.

Bees wintered quite well in this section of country. There was but very little loss compared to a year ago. Some bee-keepers that lost but very few colonies a year ago, last winter lost quite a good many colonies. It is something that I don't understand exactly. I have had quite a considerable experience in the ups and downs of bee-keeping. My parents were one of the first settlers in the town of Sardinia, Erie county, N. Y. My mother had bees before she was married. Father brought them from Canandaigua in the winter on a sled, 75 miles. I have taken care of them ever since I was old enough to manage bees. The honey season is quite a little better than the average, this season. EDWIN RICE.

Chaffee, N. Y., July 28, 1893.

Who are the Fortunate Ones?

What bee-keepers are interested in now is to know who are the fortunate ones to secure a crop of honey, and the favored localities this year. In this part of Illinois (Jersey and Madison counties), so far as I have been able to learn, the honey crop is a failure. The drouth last fall, and the heavy sleet the past winter, killed out the white clover so badly that there was but little of it, and the bees failed to gather any surplus; and as they came out of the winter and spring in poor condition, the result is they now have but little honey, and unless we get a fall crop, bees in this locality will be in a very poor condition to winter, unless they are fed. Unless the hot, dry weather lets up soon, and we have rain, the prospect for a fall crop is quite slim, especially on the prairies. Along the river bottoms they usually get some fall honey. H. D. EDWARDS.

Delhi, Ills., July 24, 1893.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, Aug. 5, 1893:

CHICAGO, ILL.—We quote fancy new honey at 18c.; No. 2, at 16c.; amber, 15c. Beeswax, 22@25c. We have had some shipments of fancy new stock which sold at once. J. A. L.

CHICAGO, ILL.—There is not much movement in comb honey. Prices range at from 12@16 and 17c., all good grades bringing 15@17c. A few cases of the new crop have arrived and brought the top prices. Beeswax is very steady at about 25c. Extracted honey is moving very slowly at from 6@8c.
R. A. B. & Co.

CHICAGO, ILL.—Honey this year is being placed on the market earlier than last season, but the demand is restricted and will be light until small fruits are out of the market, and with the prospect of a large crop, buyers will be particular as to quality, and the best will find ready sale upon arrival. No. 1 comb, 16c Extracted, as to quality, 5@7c.
Beeswax—22@24c. S. T. F. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.
Beeswax—20@23c. C-M. C. C.

CINCINNATI, O.—Trade is dull in all its branches, with a fair demand for extracted honey at 5@8c. Prices for comb honey are nominal, with no choice honey on the market.
Beeswax—Demand fair, at 20@23c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—No comb honey on the market. New crop extracted is now arriving freely from California and the South, and the market is well stocked. Trade is quiet, demand light, and prices have a downward tendency. We quote—Southern, common to fair, 60@65c. per gal.; choice, 70@75c. per gallon. California, 6@6½c. per lb.
Beeswax—25½@27c. H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality, 1-lbs. Beeswax is neglected at 22@23c. S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 6@7c. No beeswax on the market. H. & B.

BOSTON, MASS.—Honey is selling slow and prics are lower. Best 1-lb. comb, 16@17c.—Extracted, 8@10c.
Beeswax—None on hand. B. & R.

ALBANY, N. Y.—Although honey market is not fairly opened yet, we are reciving a few lots that sell well, and indications are that honey marketed early this year will bring the best prices, especially comb honey. White comb, 15@17c.; medium, 14@15c.; dark, 12@13c. Extracted moves slowly, although white is not plenty and sells at 7½@8c.; amber, 7@7½c.; dark, 6@7c.
Beeswax—Quiet at 26@28c. H. R. W.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white conb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.
F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.
SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.
J. A. SHEA & CO., 14 & 16 Hennepin Avenue.

Kansas City, Mo.
HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.
H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.
CHAS. DADANT & SON.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

Amerikanische Bienenzucht is the name of a bee-book printed in the German language, which we now have for sale. It is a hand-book on bee-keeping, giving the methods in use by the best American and German apiarists. Illustrated; 138 pages; price, postpaid, $1.00. It is just the book for our German bee-keepers. We club it with the BEE JOURNAL for one year, for $1.75.

Have You Read that wonderful book Premium offer on page 189?

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE—High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

WANTED—A good girl to do general house work in a family of four persons, two being children. A Methodist (or protestant) preferred. Reference—George W. York & Co.
Address, MORTON J. DATE,
3Atf 189 Washington St., Chicago, Ill.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Aug 15.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

☞ **In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.**

North American Bee-Keepers' Association

President—Dr. C. C. Miller....Marengo, Ills.
Vice-Pres.—J. E. Crane.......Middlebury, Vt.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.

Advertisements.

ONE DOLLAR

Will purchase a **Ten Dollar** Queen by **Return Mail.** **HENRY ALLEY,**
WENHAM, Essex Co., MASS.

PATENT WIRED COMB FOUNDATION
Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation
Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook, Montgomery Co., N. Y.

Mention the American Bee Journal.

By Return Mail, from that Specialist,
JAMES F. WOOD, North Prescott, Mass.,

Queens **YELLOW TO THE TIP,** Mated with hand-picked Drones that have Solid Yellow abdomens

These Drones are from a different Strain than the Queens, hence a Direct Cross is secured. I can warrant them to produce a large per cent. of **Golden Workers.** I have tested several of them, and have quite a number that show Every Bee Evenly Marked with 4 Segments Solid Yellow, and a Yellow Band on the 5th, and a great many show from 80 to 95 per cent. such marked Bees, and none less than 40 per cent. These are what are commonly called "**5-Banded Bees.**"

Price the same as in former years, 75 cents each. 6Etf

Mention the American Bee Journal.

WAR IN SIAM

Is of no particular interest to us, but if you do not want **WAR IN YOUR APIARY** get some of Trego's Gentle

Solid Yellow Queens,

Warranted to get Bees with at least 3 Broad, Yellow Bands, and Very Yellow Drones—and many of them get Bees all 4 and 5 Banded. See here:

"Many thanks for the two Queens sent May 18th. Their Bees are Yellow to the Tip.—Isaac Hays, N. Yakima, Wash., June 29. '93."

One Warranted Queen, $1.00; 6 for $5.
Money Order Office—Cable, Ill.

S. F. Trego, Swedona, Ill

Mention the American Bee Journal.

O **Sample of the only 50c a year 16-page ag'l & home weekly; circulars, etc., of best household steam cooker; & terms to agents, all for 2c stamp. Agents clear $50 a week.**
FARMER'S CALL, Quincy, Ill.
Sample paper free. New subs., 1 year, 25c.; 3 yrs. 50c.

DR. WINCHELL'S
TEETHING SYRUP

Is the best medicine for all diseases incident to children. It regulates the bowels; assists dentition; cures diarrhœa and dysentery in the worst forms; cures canker sore throat; is a certain preventive of diphtheria; quiets and soothes all pain, invigorates the stomach and bowels; corrects all acidity, will cure griping in the bowels and wind colic. Do not fatigue yourself and child with sleepless nights, when it is within your reach to cure your child and save your own strength.

Sold by all druggists. Prepared only by the Emmert Proprietary Co., Chicago.

2E20t *Mention the American Bee Journal*

EVAPORATING FRUIT
STAHL'S EXCELSIOR EVAPORATOR.
Best, Cheapest & Most Reliable on the market. Catalogue free. Address Wm. Stahl Evaporator Co., Quincy, Ill.

4E5t WHEN ANSWERING MENTION THIS JOURNAL.

MY WIFE SAYS SHE CANNOT SEE HOW YOU DO IT FOR THE MONEY.

$12 Buys a **$65.00 Improved Oxford Singer** Sewing Machine; perfect working, reliable, finely finished, adapted to light and heavy work, with a complete set of the latest improved attachments FREE. Each machine is guaranteed for 5 years. Buy direct from our factory, and save dealers and agents profit. FREE TRIAL and FREE CATALOGUE.

OXFORD MFG. CO., DEPT. Chicago, Ill.

Mention the American Bee Journal.

ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—— ——TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., AUG. 17, 1893. NO. 7.

EDITORIAL BUZZINGS

Dr. Gallup, writing from Santa Ana, Orange county, Calif., on Aug. 2nd, said it is estimated their little county will have 200 tons of honey this season. He thinks that is not so very bad as it might be. So think we. The quality of the honey is extra good, besides. What a sweet little county the Doctor must live in!

◆

Prof. H. W. Wiley, Chief Chemist of the Department of Agriculture at Washington, is "shown up" in *Gleanings in Bee-Culture* for Aug. 1st. We mean that a splendid picture of him and a biographical sketch were given. Prof. W. is Chairman of the Joint Committee having in charge the World's Congress of Chemists, which is to meet here in Chicago on the 21st of this month. We hope to meet him at that time,

◆

Bro. Hasty, the *Review's* Condensed Viewer of Current Bee-Writings, said a great many very interesting things about the old AMERICAN BEE JOURNAL, in the July *Bee-Keepers' Review*. We are going to try to merit at least the greater part of his generous compliments, though we know we don't measure up to all of them. Many thanks to Bros. Hasty and Hutchinson—to the former for his good "view," and to the latter for his good *Re-view*.

Mr. J. M. Hooker, a life member of the British Bee-Keepers' Association, and a very genial gentleman, called on us last week. He lives near London, England, and had come to visit the World's Fair, having been deputed by the above bee-association to look after their honey exhibit, and to arrange for its disposal at the close of the Fair. We enjoyed Mr. Hooker's call very much, and trust that he may have a safe return to his far-away home, and bear with him pleasant memories of his visit to America.

◆

Hon. R. L. Taylor's first report as Michigan's apiarian experimenter, is given on page 212 of this number of the BEE JOURNAL. It is exceedingly interesting, and the results of the experiments already begun, will be anxiously waited for. Bro. Taylor takes hold as if he meant to do something for bee-culture, and as he does everything *thoroughly*, his conclusions may generally be considered final as well as valuable. Success to the new experiment apiary and it's tireless manager.

◆

The British Honey Exhibit is to be found on the east side of the Agricultural Building, on the main floor, being among the general agricultural exhibits made by Great Britain. It is arranged something in the shape of two sides of a pyramid on a stand perhaps three feet high, the whole extending about eight feet in height.

The honey shown is entirely in the extracted form, and of course candied, all having been gathered last year. The exhibit consists of some 900 one-pound bottles of honey, all donated by over 100 members of the British Bee-Keepers' Association, representing almost every county in England, Scotland, Ireland and Wales.

The honey was gathered from white clover, sanfoin, fruit-bloom, lime (or linden), Scotch heather, and many other nectar-bearing plants to be found in Great Britain. It is exceedingly white in appearance, and the bottles are tastefully labeled and arranged.

In this exhibit are also shown copies of many of the English bee-books, and also artistic diplomas which we believe are offered for various objects by the British Bee-Keepers' Association. We understand that much more bee-literature, including all the volumes of the excellent weekly *British Bee Journal*, were sent for exhibition, but for some reason are not shown.

Considering the little inducement there was for our British friends to make any exhibit at all, we think what they have done shows a grand fraternal spirit that will be fully appreciated by their "cousins" on this side of the "briny deep."

◆

Mr. D. E. Merrill, of the well-known firm of Falconer Mfg. Co., of Jamestown, N. Y., called on us recently, but we are sorry to say we happened to be out of the office at the time he was in. Try it again, Friend Merrill, the next time you are in Chicago, and we will try to be in, then.

◆

Studying Bees.—In the Alameda county, Calif., schools they have a short course on Entomology, which includes the study of bees. In the programme for the spring term we find this requirement: "Lesson XII.—Give a lesson on the bee and its commercial value." We venture that every student will be interested in that lesson, for young people, as well as older ones, are always ready to listen to anything about bees. Good idea to teach it in the schools.

◆

Enclosing a Postage Stamp for reply is the very least you can do when writing to any one on business, or when asking questions that require time to answer. Mrs. Atchley received a letter a few days ago from a perfect stranger, who asked fully 20 questions about Texas, and the writer didn't even put in a stamp for reply! If this was the only letter of the kind, nothing would be said of it, but when such letters run up to about 50 or 100 a week, the postage and stationery for replies amount to something, and Mrs. A., nor any one else, should be asked to spend their time and money for nothing. A lawyer would expect a good, big fee for answering a great many less questions than the one referred to above sent to Mrs. Atchley, expecting her to sit down and write for half a day *just for fun*, and furnish stamps, etc., besides. Of course it is simply carelessness or thoughtlessness that is responsible for not enclosing at least a stamp for reply. Please remember this, if you are among the guilty ones.

◆

The New York Honey Exhibit at the World's Fair, which we described so fully on page 137, seems to have contained some un-"scientific pleasantries," as well as unintentional ones, on our part. Dr. Mason takes us to task about it in the following letter:

AUBURNDALE, O., Aug. 7, 1893.

MR. EDITOR:—What is the matter with you, anyhow? I have just been looking at the AMERICAN BEE JOURNAL of Aug. 3rd, and on page 137 you show what a poor guesser you are, in writing up the New York honey exhibit, and I would like to "kinder" straighten you out, or your editorial, a little, so that when you guess on the other exhibits at the World's Fair, you won't get so far "off."

Your description of the cases is somewhat misleading in the second paragraph, although corrected in the third.

You say, "The exhibit consists of about 5,000 pounds of comb honey, and about 3,000 pounds of extracted." If you will just cut your figures in two, saying 2,500 and 1,500 pounds, respectively, you will be much nearer the mark, and I believe even that would be a good, strong estimate. If the New York exhibit has 5,000 pounds of comb honey, Ohio has a good thousand pounds; and I know it has less than 500 pounds; and if New York has 3,000 pounds of extracted honey, Ohio has about 2,200 pounds, and I know that it has less than 1,100 pounds. Ontario has, on your New York guessing, nearly 6,000 pounds of extracted honey, when, in fact, it has only about 3,000 pounds.

You say "this enormous exhibit of beautiful honey occupies 3½ times the space taken by any other State or foreign exhibit," when, in fact, it occupies *less* than 2½ times.

You also say that "New York has on exhibition more than ten times as much comb honey of the finest quality as any other State or foreign exhibit." Had you said five times as much, instead of ten, you would have been nearer the mark, although beyond it.

In the last paragraph, on page 138, you state, in substance, that 43 New York bee-keepers contributed, or are represented by, 100 pounds of comb honey and 50 pounds of extracted honey, each. I have been informed that all the comb honey exhibited in the largest case was purchased of one bee-keeper, and the other and smaller case contains but little, if any, more than one-fourth as much. I understand that none of the honey was donated or loaned to the State for the exhibit, but that all of it was bought by the State.

If I am correctly informed, all of the honey exhibited by Ontario, was either donated or loaned for the exhibit, and I think it speaks well for, and is a credit to, the Canadian bee-keepers who have shown so much interest in their exhibit. It doesn't seem to me that a bee-keeper is entitled to much, if any, credit for selling his honey to the State, but the honor goes to those who have loaned or donated honey for an exhibit.

The New York comb honey is no whiter (if as white) than that from Ontario or Ohio, and the New York sections are much less perfectly filled. My recollection is, that neither Ontario nor Ohio has a section of honey on exhibition that is not better and more perfectly filled at the sides than is the best section in the New York exhibit.

I believe that the comb honey produced by J. B. Hall, of Woodstock, Ont., is a "leetle bit" the nicest on exhibition, although some I have on exhibition is a little the whitest, but not quite as perfectly filled.

When I left the World's Fair, last Friday, the Michigan exhibit was being put in place by Mr. H. D. Cutting, of Tecumseh, Mich. He had already received about 1,000 pounds of comb honey, which is loaned by Hon. Geo. E. Hilton, of Fremont, for the exhibit. Mr. Cutting expected as much from Hon. R. L. Taylor, of Lapeer, also loaned; and was looking for more comb and extracted honey from other bee-keepers, that had already been shipped, making their comb honey exhibit within a few hundred pounds (300, perhaps) of being as large as the New York comb honey exhibit.

Messrs. J. M. Hambaugh and J. A. Stone had just got their cases in place for the Illinois State exhibit. They have four cases, one being 25 feet long, and the other three about 14 feet long each, and as they have the money to do it with, if they don't make the finest honey exhibit of any, it will certainly be their own fault.

Very truly yours,
A. B. Mason.

Well, Doctor, you have made our editorial on the New York honey exhibit look "rather sick." We want to say right here, that we were not "guessing" about the matter at all, but supposed our source of information regarding the exhibit was entirely reliable. We can assure you that our intentions were good, even though some things appear to be a "leetle bit" misrepresented. No doubt in the last paragraph that Dr. M. criticises, we should have said that "the following list of New York bee-keepers each *applied for space* to be represented," etc. It may be that some of them afterward failed to get any honey to exhibit.

The Ohio exhibit certainly is a *very* attractive one, and the exhibits of Ontario, Nebraska, Wisconsin, Minnesota, and other States, are all good.

To show the variety of opinions of the honey exhibit of New York, we might give the following as samples:

Many visitors passing along have been heard to exclaim, "My! What a lot of honey!" Another, a prominent bee-keeper, and an excellent judge of honey-shows, said, when he saw it, "Oh, you've got a warehouse here; honey piled up for sale!"

While we expect to have every State honey exhibit described in these columns for the benefit of our readers, yet we hope no one will think that we are prejudiced in favor of any particular exhibit or exhibitor, for we are not. We only desire that bee-culture shall be justly represented among other things shown at the great World's Fair, but of course expect that there will be some good-natured rivalry in connection with it.

* * *

The Number of Sections made in 1892 by the enterprising firm of G. B. Lewis Co., of Watertown, Wis., was between 10 and 12 millions. At the end of this year, *Gleanings* proposes to publish a list of the section manufacturers, and the number of sections they made during 1893. It will be an interesting showing, no doubt, and Bro. Root thinks that from such exhibit "some idea" of the amount of comb honey produced this year in the United States could be obtained, of course allowing for unsold sections and partly filled ones.

At a rough guess, or estimate on the section basis, Bro. Root thinks there were from 25 to 30 million pounds of comb honey produced in this country in 1892, and that in a good year that amount would be nearly doubled, or say 50 million pounds. Allowing as much more for extracted honey, there would be an aggregate of 100 million pounds, or 50,000 tons of honey!

He says further: "This would be, however, only about 22 ounces for every inhabitant of the United States; and as vast amounts of extracted honey are used in the bakeries, and for mechanical purposes, we see that our estimate is certainly moderate."

It seems to us that bee-keeping is a pretty *big infant* industry—and a sweet one, too.

The Nebraska State Fair will be held this year on Sept. 8th to 15th, at Lincoln, Nebr. Our good friend and alert bee-keeper, Mr. E. Whitcomb, of Friend, Nebr., is superintendent of "Bees, Honey and Apiary Goods" at the famous Nebraska Fair. The following is the Premium List, with rules and regulations:

RULE 19.—When there is but one exhibitor competing for a premium, the committee may award no premium, or second or first, as merit may warrant. But in no case shall the money award exceed half that stipulated in case of competition. In non-competitive awards, committee must state in writing to the Board, in detail, the reasons for awards. All non-competitive awards are subject to revision and change by the Board of Managers, or the State Board when in session: *Provided*, The Board of Managers, or the State Board, shall have power in extraordinary cases, with evidence justifying, to award a full cash premium.

Twenty per cent. of all cash premiums over two dollars awarded by the Board will be retained as entrance fees.

LOT 1.—BEES AND HONEY.

Points for the judgment of honey—

Comb Honey: 1st. Perfection of capping. 2nd. Evenness of surface. 3rd. Whiteness of capping. 4th General appearance as to marketability.

Extracted Honey: 1st. Cleanliness. 2nd. Clearness. 3rd. Flavor.

	Premiums—1st.	2nd.
Best comb basswood or white clover honey, not less than 20 pounds, crated and in single-comb sections weighing not more than 2 pounds each	$10	$5
Best comb fall honey not less than 20 pounds, crated and in single-comb sections weighing not more than 2 pounds each	10	5
Best gallon of extracted white clover or basswood honey	5	3
Best gallon of extracted fall honey	5	3

The above is limited to competitors producing their own honey in Nebraska during the year 1893.

Best 20 lbs. of granulated honey	$5 00	$3 00
Best and largest display of any one, including bees, extracted comb honey and apiary supplies	15 00	10 00
Best exhibit of brood-chamber and surplus comb foundation, full to partly drawn	10 00	5 00
Best exhibit of apiarian supplies and implements	15 00	10 00
Best display of honey in marketable shape	10 00	5 00
Best display of honey-candy, honey-sugar, and sweets by any one, in which honey is made to fill the place of sugar	5 00	3 00
Best honey-vinegar, not less than one-half gallon	3 00	2 00
Best display of bees and queens in observatory hives, and not allowed to fly	10 00	5 00
Best exhibition of extracting honey, to be exhibited on the grounds under the direction of the Superintendent, not later than Thursday of the Fair	10 00	5 00
Best honey-extractor, test to be made by actual extracting upon the grounds	5 00	3 00
Best all-purpose single-wall hive	2 00	1 00
Best all-purpose chaff-hive	2 00	1 00
Best bee-smoker	1 00	50

The following is confined to exhibitors in Nebraska alone:

	Premiums—1st.	2d.	3d.
Best display of apiarian implements and supplies, including comb foundation, same full to partly drawn, and queens and bees in cages	$15	$5	
Best report of surplus honey stored by any colony of bees during the year 1893, the amount of stores, manner of building up, handling, kind of hive used, and kind and quality stored, to be verified by owner, entries to conform with other entries of this class, and report with verification to be filed with Superintendent not later than noon on Thursday of Fair	15	10	5

LOT 2.—DISCRETIONARY.

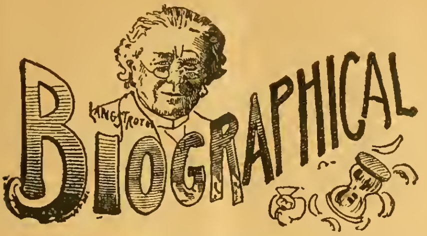
This lot is intended for any and all articles which have been omitted in any of the foregoing lots in this class, and might properly have been included therein.

On July 24th, when sending us the foregoing Premium List, Bro. Whitcomb wrote as follows:

BRO. YORK:—We are getting some nice honey in parts of Nebraska, but just in my locality we are feeding every colony in the apiary to prevent starving. Should there be plenty of rain there will be an abundance of heart's-ease flow.

The space in the Nebraska honey-house at the State Fair is all taken at this date, and we are asking the Board of Managers for more room. Indications point to the largest display in every department in the history of the State. E. WHITCOMB.

Nebraska apiarists are to be congratulated upon the interest and enthusiasm manifested in their department at the Fair. It shows what conscientious and thorough work will do. Bro. Whitcomb must be a "happy bee-man."



HON. GEO. E. HILTON.

In the ranks of bee-keepers are to be found representatives of almost every walk or profession in life. We find doctors and dentists; lawyers and legislators; manufacturers, merchants and mechanics; professors and preachers; bankers, editors, students and house-keepers, all mingle with farmers and fanciers of every degree and description. But as bee-keepers they all meet on a common level, and vie with the bees as brethren and sisters in the great and harmonious industrial "hive of the world."

GEORGE E. HILTON.

In our biographical department, so far this year, we have presented 10 farmers, 4 editors, 4 doctors (one a dentist), 2 lawyers, 2 legislators (including Mr. Hilton), 2 manufacturers, 2 bankers, 2 merchants, 2 house-keepers, 2 students, and 1 mechanic. Thus we see the great variety of vocations represented by the 33 different persons.

But this week we are permitted to present another legislator bee-keeper, in the person of Hon. George E. Hilton. This is the fourth prominent Michigan bee-keeper that we have had the pleasure of showing to our readers since July 1st, and the "pine woods" of that ever-leading apicultural State is still "full of them."

Mr. Hilton was born in the town of Leighton, county of Bedford, England, 46 years ago, and came to America with his parents in the fall of 1851. Since 1876 he has resided in Fremont, Mich., and has owned and managed at one time 250 colonies of bees. He has made a record of 75 pounds of comb honey per colony, spring count, for eight consecutive years. His supply business now occupying much of his time, he has reduced his apiary to 100 colonies.

Mr. H. served two years as President of the Michigan State Bee-Keepers' Association, and three as Secretary. He organized the Fremont Progressive Bee-Keepers' Association, and was its President until he organized the Newaygo County Farmers' and Bee-Keepers' Association, which absorbed the former. He is at present serving his seventh consecutive year as Secretary and Treasurer of the latter. He was appointed by the Board of World's Fair Managers for Michigan a member of the Special Committee on Apiarian Products. He invented a chaff hive and T super that bears his name, which is all the royalty he asks.

At home he has served two years as village Councilman; is Treasurer of the Republican League; is a member and trustee of the First Congregational church; has been Superintendent of the Sunday-school for upwards of four years, and is now Village Treasurer and Representative from Newaygo county, and special commissioner on legislation in the interests of bee-keeping. Mr. Hilton occupies a high position in the esteem of his neighbors and friends, and was elected to the Legislature by a majority of 428.

Of Mr. Hilton's record as a Representative in the State Legislature, the *Newaygo* (Mich.) *Republican* had this to say at the close of the last session of the State assembly:

> The Legislature adjourned *sine die* May 29th, and is conceded to have been a better and abler body than any that has assembled in Lansing for several years. Hon. Geo. E. Hilton, the Representative from this county, has taken no small part in the business of the House, and he has made a record of which the county may well feel proud. The Good Roads Law, of which he was the author, will stand the test, and certainly become popular with the people as they become familiar with its provisions. Mr. Hilton never dodged a vote, but met every issue manfully, and if all could not agree with his opinions as shown by his votes, none could fail to respect him for his manly, straightforward course. For a new member, entirely without Legislative experience, Mr. Hilton has made an enviable record.

The foregoing is a deserved tribute to our friend. True merit always should win, and eventually does, in almost every instance. We are proud of our leading bee-keepers, not only for their efforts in behalf of the industry in whose interest they and we are engaged, but for their sterling worth of moral character and nobility of manhood and womanhood. We delight to honor them in every way possible, and point with pride to them as examples worthy of the utmost endeavor to emulate.

◆

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Was the Queen a Drone-Layer?

As I was walking through my apiary I noticed a ball of bees, and on examining them I found a queen among them. I supposed she came out on her wedding flight, and was lost, so I put her into the hive just as she was, as the bees were very uneasy. I found only drone-brood in the combs. I supposed she was only a drone-layer. Please let me know whether I am right or wrong.

JOSEPH WEBER.

Marysburg, Minn.

ANSWER.—It's a little dangerous to make a guess about anything done by bees on insufficient data. In the present case a balled queen is in front of a hive containing only drone-brood. She might be from any hive in the apiary, but being in front of a hive bears somewhat in the direction of her belonging to that hive. A drone-laying queen is not often balled, but bees are freaky little beasts, and sometimes ball their own queen with no apparent reason for it. It is just possible that the queen became a drone-layer from extreme age, and was driven out on the hatching of a new queen.

◆

Introducing Laying and Virgin Queens

I have 40 colonies of bees, a great many of them being blacks and hybrids, and have reared about 12 nice Italian queens. Please tell me the best and safest way to introduce both a laying queen and also a virgin queen. I have them in nucleus hives. Is it safe to double them and introduce at the same time? T. N. PETTIGREW.

Fincastle, Va.

ANSWER.—If all that has been written about the introduction of queens should be got together, it would make a large book. You would do well to get one of the standard books and read up. As your nucleus hives probably have the same size of frames as your other hives, you may introduce and double up at the same time. There is not much trouble uniting while bees are storing. There are probably two or three frames in your nucleus. Go to the big hive and kill the queen, and at the same time take out a frame from the hive and add to the nucleus, and it may be well at the same time to set the nucleus over the big hive. In a day or two more, take one or two frames again from the big hive and add to the nucleus. Of course, you will each time take the adhering bees with the combs. By this time your nucleus will be strong enough so that in two or three days more you can add to it the rest of the old colony.

You might manage with less trouble, but the above plan is a very safe one for a bee-keeper of little experience. An easier way, although not so safe, is to simply kill the queen in the old hive, then after three or four days put into the hive the combs of the nucleus, bees, queen and all.

◆

Moving Wide-Frames with Sections.

In the "A B C of Bee-Culture" Mr. Root speaks of moving the wide-frames of the section-holder arrangement from outside to inside, and *vice versa*. Would not this let them down on the tops of the brood-frames, and so shut off nearly all of the passage-way for the bees? Or is there to be a honey-board used? If so, what kind? F. N. GARDINER.
Guthrie, O. T.

ANSWERS.—No, the wide-frames are all alike, outside and inside, and moving one in place of the other will make no difference. There is a bee-space under the wide frames. Whether a honey-board is needed or not depends upon other arrangements. With narrow and thin top-bars, and a ⅜-inch space over the top-bars, something in the line of a honey-board is needed. Much better than a honey-board it is to have thick top-bars, and bee-spaces under rather than over ¼ of an inch.

Moving sections from the outside of the super to the inside to have them finished up is one of the things that sound very nice in theory, but it is not at all certain that you will like it in practice. If you produce honey on a large scale, you will probably find that a section will not be finished up, as a general rule, anywhere else as well as in the place where it is first started, and it is best to let the super alone without any changing until all the sections are ready to take off, or at least until all but the corner sections are finished. Then, if desired, you can gather together a super full of these unfinished sections and put them back to be finished.

THE LAND OF DZIERZON

CONDUCTED BY

H. REEPEN,

OLDENBURG, GROSSHERZOGTHUM, GERMANY.

Can Bees Hear?

Mr. Doolittle says no! (see page 630, 1892) but he always treats bees as if they can hear, and curious, to say, if he *wants* them to hear they *do* hear; that is, if he wants bees to enter a hive, he puts some close to the entrance. These bees, happy to find a home, begin to hum in a certain kind of way, and immediately the whole lot (swarm, etc.) knows where to go; all bees turn their head to the hive, and enter without hesitation. They have *heard* their comrades which are at the entrance. Is it not so, Friend Doolittle?

◆

Theory of Parthenogenesis.

Mr. C. J. Robinson ought to show first that he is competent to speak about parthenogenesis. He ought to give stubborn *proof* that the term "parthenogenesis" is a "misapplication" applied to the production of drone-bees. My "weak diction" is the diction of Dzierzon, Prof. Luckhart, Prof. von Siebold, Cowan, Cook, etc., and if Mr. Robinson calls the statement of these men of letters, "the sum of ignorance," he cannot be astonished if I call his way of converting, "the sum of arrogance."

◆

Is Honey-Dew Aphidian Honey or Not?

Alberti, the editor of a very good German bee-paper, has at last decided this question. He cut off a branch of a pine-tree which was covered with tree-lice and honey-dew, cleaned this branch *very carefully* so that *no* honey-dew or tree-lice were any more on the twig, and placed it in his room. The next morning the twig *was again covered* with *small drops of honey-dew*—a stubborn fact that honey-dew does not always consist of the excrements of the tree-lice.

If bees carry in great *quantities* of honey-dew you may be sure that this kind of dew is nothing but an exudation or perspiration of the leaves, as the bees do not care for the real aphidian honey, which nearly every year is to be found on the surface of the leaves. I have only *very seldom* seen a bee carry in this dreadful stuff, and perhaps then it was a mixture of both. The *exudation* is to be found mostly on the *underside*, and in the sheath of the leaves.

Ceresin for Foundation.

A. I. Root writes in *Gleanings*, page 227: "Will some of our German friends sift this matter?"—whether ceresin is used for foundation in Germany or not. Well, Friend Root, I am sorry to say, that ceresin is used for foundation in Germany to a *very large* extent. Mr. Root says he has tested the matter thoroughly, and has found out that even the least admixture of ceresin will surely cause the combs to break down during the extreme heat of the summer.

I should be very happy if Mr. Root was right, but we have noted *just the contrary*. The well-known firm of Schulz, at Buckow, which now sells those combs with *cells of full length*, uses, as far as I know, only a mixture of ceresin and wax for all kinds of foundation. This mixture is called "artificial wax" or "prepared wax." *The bees do not like it very much*, but nevertheless *many thousand pounds* of this kind of foundation are sold yearly as it is cheaper. It is my most ardent desire to stop this kind of business, but nothing can be done at present.

The World's Fair Women "Souvenir" is the daintiest and prettiest book issued in connection with the World's Fair. It is by Josephine D. Hill—a noted society lady of the West—and contains superb full-page portraits and sketches of 31 of the World's Fair women and wives of prominent officials connected with the great Fair. It is printed on enameled paper, with half-tone engravings, bound in leatherette. We will send it postpaid for 60 cents, or give it for *two* new subscribers to the BEE JOURNAL at $1.00 each.

Have You Read page 221 yet?

IN SUNNY SOUTHLAND

CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

Unfinished Sections of Honey—What is to be Done with Them?

MRS. JENNIE ATCHLEY:—Again I want to give some of my experience, and also ask your advice.

This year my bees have done very well in almost every way. I have had a great many swarms, but by doubling up and hiving back, all my colonies are now very strong, and have been almost all the season.

In this section, what we call our sourwood honey-flow is just about over, and bees have gathered a great deal of honey from it. We think that sourwood honey is as good as any in the world, and as it came in so rapidly at the beginning of the flow, I worked my supers too far ahead of the bees. Thinking that I would get a very large amount of this fine honey, I piled up until on a good many hives I have three supers, and now the result of this is, I have on hand about a thousand one-pound sections that are not completed, and I want to ask what is the best way I can get them completed.

In examining the colonies I find the brood-chambers of almost all of them very full of nice honey—of course it is mixed with brood and pollen somewhat. If I should let them gently alone, will they carry the honey from the brood-chamber to the supers?

Among the thousand unfinished sections, a great many of them are just about full, and sealed on both sides, but right around the edge just a few holes are not filled, which, of course, makes the package look incomplete, while others are not so nearly finished. What is the quickest and nicest way to get these sections completed?

We will not have another honey-flow to amount to anything before the asters bloom, and I did not think it would do to let these supers remain until then. Anyway, my experience is that bees never store much from asters in the sections, as by that time it is getting pretty cool, and bees do not do much at comb-building here then, according to my experience.

Again, I might say that none of these partly-filled sections are *very white* and nice, and I imagine the longer I leave them on the hives, the darker they will get. F. B. Efird.

Winston, N. C., July 24, 1893.

Friend Efird, you have struck on a point in apiculture that I am not posted on. When I used to produce comb honey, I always extracted my unfinished sections, and used it on the table, or sold it. I then placed the crates back on the hives late in the fall, and let the bees clean them up nicely, then stored them away for next year's use. Of course, those that we so nearly full as to be a loss to extract, I always sold at a few cents less. But I am not posted, and from hearsay and theory, I think you had better try Dr. Miller's feeders, or score your full combs in the brood-chamber, *a la* Dr. Marshall and M. M. Baldridge. The bees having no place to put the honey below while they repair the combs, they are forced to carry it up into the sections. I never tried it, but I believe I would not touch the brood-combs. Will some brother bee-keeper, with experience along this line, tell us all about it? Jennie Atchley.

Greatest Season in 20 Years.

Mrs. Jennie Atchley:—Thinking perhaps that you would be pleased to hear from the bee-interests of our State—the land flowing with "milk and honey" this year—I concluded to write you. I think I can truly say that this has been one of the greatest honey seasons, if not the greatest one, that I have had in my 20 years' experience as a bee-keeper.

To begin with, the spring up to the first of May was the worst in years; it was cold and backward, and it was utterly impossible to build up weak colonies, but finally fruit-bloom came, with fine weather, and the honey-flow came also. The bees built up rapidly. I got my first swarm on May 24th. They were then gathering more than they were consuming.

The flow continued without a day's cessation until July 15th, or thereabouts. The flow was not extra heavy at any one time, but was continuous. I think there was from 55 to 60 days that there was more honey gathered than was consumed. I had at the commencement of the flow 11 full colonies on nine and ten frames, and 17 more or less weaker (some only covering four frames), and my surplus will be, when all is off, about 1,050 pounds in one-pound sections, and from 1,000 to 1,200 pounds of extracted, and the finest I ever saw, especially the honey in the sections. Not an ounce of dark honey has been gathered so far.

Bees are practically doing nothing just now, it being very dry. The clover is all gone, but there are good prospects of sufficient fall flow for winter stores, though most of my hives are well filled now. L. G. Reed.

Kent, Ohio, July 26, 1893.

The Different Kinds of Queens.

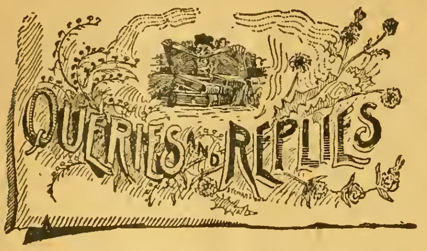
Mrs. Atchley:—Please tell me the meaning of "untested queens." Are they merely virgins, or are they what would be called "fertile queens" that have not begun to lay? A. Jackson.

Fresno, Calif.

Friend Jackson, untested queens are those that have not been laying long enough for their bees to hatch. Virgin queens have never been mated, and are worthless until fertilized, as they do not lay any worker-eggs until they have been mated. Tested queens are graded, and as there are several kinds of tested queens, I will enumerate them for the benefit of some beginners that have asked some questions regarding them.

As soon as the workers begin to hatch, and prove all Italian bees, the queen is called "tested." When a queen is kept long enough to test her workers as to honey-gathering, gentleness, etc., she is called "select tested;" and then when we get a queen that "shows up" all right as above—nice bees, good for honey, gentle and prolific, and duplicates herself in her daughters—then I call her a "select breeder," and classed as one of the best queens. This is my own "table," and may be improved upon. Jennie Atchley.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the Bee Journal. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.



Conclusive Evidence that the Queen is Pure.

Query 884.—If all the worker-bees are three-banded, is that conclusive evidence that the queen is pure, and that she is purely mated ?—Tenn.

Yes.—Jas. A. Stone.

I should think so.—E. France.

Practically, yes.—James A. Green.

It is so considered.—J. P. H. Brown.

Yes, I should consider it so.—C. H. Dibbern.

I can't say positively. Who can ?—J. H. Larrabee.

I don't know of any better evidence. Do you ?—C. C. Miller.

It is very good evidence, yet not conclusive.—H. D. Cutting.

It ought to satisfy any reasonable person.—Mrs. L. Harrison.

I should want a uniformity in their bands in addition.—P. H. Elwood.

I believe this is in accord with standard authority.—J. M. Hambaugh.

We have been satisfied to accept this as evidence of purity.—S. I. Freeborn.

Yes, quite good, though not absolutely positive. It is acceptable.—Dadant & Son.

Such bees would satisfy me if I were buying an Italian queen.—Eugene Secor.

If there are only black and Italian bees in the region, I should say yes.—A. J. Cook.

If gentle, and have all the other traits peculiar to Italians, I should feel satisfied.—Mrs. J. N. Heater.

No. I have had such workers when it was impossible the mother should have been purely mated.—R. L. Taylor.

It is presumptive, but not conclusive. Queens having a dash of black blood sometimes produce very light-colored bees all three-banded.—M. Mahin.

Pure what ? If you mean pure Italian, I have never seen an imported Italian queen that produced all three-banded bees.—Emerson T. Abbott.

Yes ; I have found it so. Perhaps there are exceptions. Watch the temper and working-qualities of your bees, as this is of quite as great importance.—Will M. Barnum.

Without a long talk on this matter, I will say yes, that's my sign—all three-banded, and uniform. An impurely mated queen certainly never produces such bees.—Mrs. Jennie Atchley.

According to the books, yes ; but I consider the Italian bee a thoroughbred and not a pure race. For this reason we find the workers varying all the way from nearly black bees to the so-called five-banded, or nearly yellow bees of the present.—G. M. Doolittle.

Not necessarily so. The Italian bee is a "thoroughbred," not a pure-blood race, and hence they vary in color unless bred long and carefully from selected specimens. But perhaps the three-band test is as near the conservative point as can be reached.—G. W. Demaree.

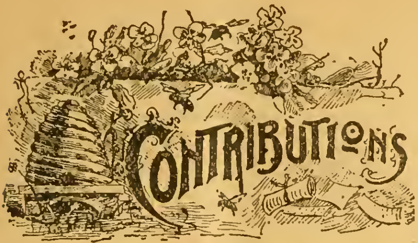
It is the only test we have that is of real value. If all the workers are three-banded, there can be no question as to purity both of blood and of mating, and is a test that all should be satisfied with. The main question now-a-days is, however, Are individual colonies good, irrespective of markings ?—J. E. Pond.

I should say yes. The best evidence of purity aside from mating can probably be found in the drones. I should like to ask if every one knows what is meant by a three-banded bee. I think some place too much stress on beauty ; beauty, it is said, is "only skin deep ;" in the bee it is less than that—only "hair deep."—R. F. Holtermann.

Convention Notices.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture in every foreign land. Frank Benton, Sec.
Washington, D. C.

"Bees and Honey"—page 195.



An Experience with the Langdon Non-Swarmer.

Written for the American Bee Journal
BY HON. EUGENE SECOR.

I have been trying Langdon's "non-swarmer" this season. I invested $5 in the device, and hence am not under obligations to say I am pleased when the thing don't work according to theory. We have often heard the old saying, "One swallow doesn't make a summer," and I think an invention which is to "revolutionize bee-keeping"—one fit to be classed with Langstroth's movable-comb hive—ought to have been tried more than one season, and in more than one apiary, before so confidently putting it on the market as a *ne plus ultra.*

If my memory serves me correctly, bee-keeping has been "revolutionized" several times since I have been in the business. There was the extractor craze (a good invention, too, if properly used); and the reversible-frame, and the automatic hiver. I have seen enough of many of these fine-spun theories to make me a trifle cautious, but like many other bee-keepers who have been waiting, hoping, for a solution of the swarming problem that would not require the presence of an attendant all summer, I grasped at this "straw." The theory seemed tenable. I was prejudiced in its favor. I wanted it to succeed. Consequently, what I now write is because I have to, rather than the wish to.

As before said, I invested in ten of the devices, and put them on twice that number of the best colonies I had. I didn't care to put them on colonies so weak that they would not swarm anyway. I use the 8-frame Langstroth hive. My bees are mostly Italians, and their crosses with the common black bees of the country. I reversed every seventh day, according to instructions. I found no trouble about working the two colonies together, and no difficulty in clearing the closed hive of bees. Many of these were so completely depleted that they killed their drones. But I lost two very strong colonies after reversing the device, by smothering. The escape was insufficient to clear the hive of bees without excitement. This, however, could be easily remedied if it were the only objection.

I had four swarms before the middle of July—three on the fourth day after reversing, and one on the sixth day. And, more than all, the 20 colonies so treated will not furnish me more honey, if as much, than 20 treated in the old way. I have had no swarms from these hives since the middle of July, but as the honey-flow suddenly ceased, the other colonies stopped swarming also.

I do not wish to prejudice any one against this or any other like invention, but if I were allowed to paraphrase an oft-quoted saying of Abraham Lincoln, I would say: You may fool all the bees sometimes, or some of them all the time, but you can't fool all the bees all the time.

Forest City, Iowa, Aug. 7, 1893.

More Experience with the Foul Brood Disease.

Written for the American Bee Journal
BY A. A. BALDWIN.

I would like to endorse what W. Z. Hutchinson says on page 80, about foul brood being caused by dead or decaying brood. The fact that there are sections of country where bees have been kept by all kinds of management, from the scientific to the slip-shod, and foul brood has never resulted from any such management, is strong evidence that it does not come from any conditions that may arise in the apiary, but must be introduced from without.

Mr. McEvoy is right when he says that honey is the vehicle that conveys the disease, notwithstanding that some of our knowing ones, because they could not find the germs of the disease in the honey, have said that it was not introduced that way. Experience is a dear school, and we are not apt to forget what we learn in it.

Science, by microscopic examinations, says that bringing the honey to the boiling-point does not kill the germs; but experience says that it does, or at least renders them incapable of doing any further harm. The saying is, "The longest way round is the surest way there;" but experience teaches that the short-cut of putting the bees from a foul-broody hive and combs into a clean hive with full sheets of foundation is better than losing six days' time on starters, and then change them for full sheets.

I have not had a case of the disease in my apiary during the past three years, and I gave full sheets to all cases treated, after I found that it was safe and sure to thus treat them.

Independence, Mo., July 29, 1893.

Bee-Notes from Iowa—Wintering, the Season, Etc.

Written for the American Bee Journal

BY L. W. RICH.

I noticed an article by Rev. W. P. Faylor in the BEE JOURNAL for June 22nd, saying that nearly all the bees in northeastern Iowa died last winter. It might have been so in his immediate neighborhood (Colesburg), but I live in northeastern Iowa, only about 25 miles west of Colesburg, and scarcely any bees died here. Out of 160 colonies right near me, there was a loss of only nine, and the average is not more than 10 per cent., where the loss was the worst.

This has been a good season so far, although it was a little backward in the spring, but the bees were in fine condition, and as soon as the honey commenced to flow, they were ready for it. I had 15 colonies, and worked 9 of the best for extracted, and the rest for comb honey. I have taken from the 9 worked for extracted, 875 pounds, and they are about ready to extract again, but the honey-flow is about shut down, and I will not get much after this extracting, unless we get some buckwheat honey this fall.

I have only 7 new swarms. Those that I worked for comb honey swarmed, and did not do so well. I use the 8-frame Simplicity hive.

INTRODUCING QUEENS.

I bought three 5-banded red clover queens, and have just got them nicely introduced. They have all been accepted by the bees, and are laying. The way I introduced them was a little different from the general directions. I first caught the old queen, and then I took the new queen out of the cage, went out-doors, and let the bees that came with her go; then I went to the hive I intended to put her into, and caught ten or twelve young bees and put them into the cage. I put the queen in with them, and hung the cage in the hive between the combs, and in 24 hours I pulled off the tin cover and let them eat in to her. It worked like a charm in every case.

There is no basswood less than 4 miles from my apiary, and I got 210 pounds of nice basswood honey. Most of our honey is white clover.

I would like to ask Jennie Atchley what the bees gather honey from in Texas, in that part of the State where the country is new. There certainly is no white clover. I don't believe she can bring Texas up to the "Garden spot of America," that is, Iowa.

Lamont, Iowa, July 29, 1893.

California Honey Crop for 1893 Again.

Written for the American Bee Journal

BY W. A. PRYAL.

This is not going to be a big year for California apiarists, as was at first supposed. The crop is not a big one by any means, as has been heretofore announced in the BEE JOURNAL, yet the yield is sufficient to make the majority of honey-producers of this State rejoice. For some years past they had not been doing as well as they wished for. The crop has been below the average for years back; this year it is said to be about a half crop; some bee-keepers may get nearly a full crop, while others will fall below that amount.

The average yield per colony in our apiary, which is located in a rather poor location, and out of the great honey region of the State, is not as great as we obtained last year. This is accounted for from the fact that we did not have any rains in May and June, when the honey season was at its height.

Mr. J. H. Martin, the well known "Rambler," who has been keeping bees in this State for two seasons, and who has become well "Californianized" by this time, writes me as follows as to the crop in his portion of the State:

"The season here has not been in any way remarkable, still there will be a good many carloads of honey sent out of this county. Prices are starting in quite low; our dealers are offering and shipping carload lots for 4½ cents per pound. Mr. Wilder and myself sent a carload to Boston, and we hope to realize 5½ cents, if not 6 cents for it. Some bee-keepers are holding their honey for the latter price, which I sincerely hope they will get. I tell our local dealers that before I sell for 4½ cents, I shall sell on commission."

A little later on Mr. M. wrote that the honey mentioned above as being shipped to Boston, netted consigners 5¼ cents per pound. This was so satisfactory that they determined to ship the remainder of their crop to the same place.

I have not heard the total yield of Rambler's apiary, but should think it must be from 14 to 16 tons; perhaps it may fall a ton short of the former figure. To show the way his hives "gave down" during his clearing-up week, I will quote from a recent note I had from him:

"Last week, from Tuesday morning until Saturday morning, I extracted almost 6,000 pounds of honey."

Mr. J. F. McIntyre, of Fillmore, Ventura county, was kept busy this season throwing the honey from his combs with a new 8-frame extractor, which was driven with a Pelton water-wheel. This extractor is one of his own design, and works very satisfactorily. He obtained 22 tons of honey. Mr. McIntyre feels so well pleased over the result of the yield of his apiary that he is contemplating a trip to the World's Fair.

These results from the bee-hives of this State, along with those previously reported, show that the Golden State is still entitled to rank as the great honey State of America, though the World's Fair Commissioners of the State did not see fit to have so great a bee and honey locality represented at the Columbian Expostion.

One pleasing feature about the industry in California at this time, is the fact that the bee-keepers are no longer allowing themselves to be at the mercy of honey commission-men, who fix the price of honey at whatever figure they see fit to offer. The business was almost on the verge of ruin when the apiculturists of the State undertook to correct matters themselves. This result was in a measure brought about by the State Bee-Keepers' Association. They can, by still further standing together, get even better prices. They have only to force their way into other markets, get lower railroad transportation, and they will be on the high road to success.

The opening up of new markets to the honey of California does not mean the crowding out of the fine honey of the Eastern States. It will, to my mind, be the means of getting the public better acquainted with fine honey. This taste once established, the public will want nothing but the best the market affords. As California cannot supply the demand for all the honey that may be drummed up in this country, it is evident that the apiarists of the East must come in for a share of the patronage thus created.

Why California honey should sell for such a low figure, is something few persons understand. Eastern honey brings a better price, and as far as quality is concerned it is safe to say that there is little difference in the quality of the better grades from the two sides of the Rockies; the flavor is somewhat different, that is about all. Generally speaking, the difference in price represents the cost of freightage to Eastern points.

Our own crop is now all in; there is yet a little more to extract. Though we have obtained more than we did last year, it has not come up to our expectations, by a good deal. As I have stated heretofore, we have done well to sell some of it off at a good price; as the market has weakened, and honey is too low to think of being disposed of at the figures now offered, we will keep the balance until it goes up, as we did last year. We are too near San Francisco to let it go just for the sake of getting rid of it.

I am glad that the Eastern crop is going to be a good one; I hardly thought it could be otherwise from the beautiful appearance of the country, as it appeared to me, as I passed along the railroad all through the East and in Canada.

We are having great crops of everything here, but the whole country has a dry and parched appearance at this writing (July 11th). The dry season is upon us, and will continue until the latter part of November, or even later. By Christmas the hills and valleys will again resume their emerald garments. How different at that time from those that will in all probability be seen all through the East for nearly six months!

North Temescal, Calif.

Why Do Some Suffer from Bee-Stings and Others Not?

Written for the American Bee Journal

BY EMM DEE.

If there is one thing above another that charms the humble writer hereof, it is a breezy, off-hand, good-natured reply like that of Dr. Hachenberg, of Austin, Texas, on page 177. Brother H. infuses the result of heavy experience in the matter of inoculation regarding bee-stings, which must compel conviction to the most obdurate mind.

The only exception that can be taken to his reply—and it is taken with profound deference—is the suggestion that he overlooks the querist's point as to *causes that prevent stings from bees.* There is likelihood that repeated inoculations of formic acid by the bees may render some tolerant of the virus, as he says, but my article referred to persons who were *not* stung, and suggested a possible reason *why* they were not. Not being a "savant" on the subject, I modestly suggested a *theory*, only. But as the importance of the subject is entirely secondary, I close it right here. "Nuff sed."

Sunnyside, Ills.

◆

Directions for Making a Cheap Extractor.

Written for the American Bee Journal
BY R. F. WHITESIDE.

For a bee-keeper running from 5 to 50 colonies an extractor can be made for about $1.25, thus:

Four frames 10x18 inches, outside measure, 2 boards 17 inches wide, 15 inches long, 7 cents; 1 board 21 inches long, 12 inches wide, 3 cents; 6 sticks, 4 cents; nails, 3 cents; barrel, 10 cents; 3 feet of wire-cloth, 33 cents; and half a day's work, 62 cents; total, $1.25.

To make it, nail two sticks about 5 inches long to the inside of the barrel opposite each other, and 4 inches from the bottom of it, having notches cut in them to receive a cross-bar, which make about ¼x2 inches (off a bunch of shingles would do). The upright center piece for the basket is 2x2 inches, and 2 feet long; bore two one-inch holes through it, 10 inches apart, drive through two round sticks 8¼ inches long, that fit nicely—old broom, mop or rake handle stuff. The upright stick should be tapered off at the bottom end, and made round to one inch diameter near the top end for a journal. A board 2 inches wide and 5 inches long, with two or three half-inch holes bored in it, and nailed to the top of it with wire-nails, does very well for a crank to turn it by.

Nail two sticks 17 inches long to the 17-inch wide boards, and 1½ inches thick, and bore two one-inch holes ¾-inch deep, and 10 inches apart in each of them, and fit them on the ends of the round inch sticks. Nail on the wire-cloth (which should be 12 inches wide, and 19 inches long) to the ends of the boards as tight as you can, and then spring the boards apart, and fasten firmly to the spokes. Let your 21-inch board cover ½-inch more than half the top of the barrel, and place a hook and staple to fasten it to the wall firmly, and box on your center upright piece. The inside of the barrel should be sand-papered and waxed.

Little Britain, Ont.

◆

Work at Michigan's Experiment Apiary.

As Reported in the "Bee-Keepers' Review,"
BY R. L. TAYLOR, APIARIST.

In the first article concerning the work at the Michigan Apicultural Experiment Station, I must confine myself briefly to a statement of some of the items of work already undertaken, and to indicating some of the benefits which it is hoped may be derived from them, only briefly alluding to results so far as they yet appear, without entering into details.

It must be remembered that I have been plunged into the midst of the work of the Station at the most important as well as the busiest season of the year, by an appointment as Director only a short time before the opening of the honey season—an appointment which I had previously not the remotest thought of receiving—and so no doubt many of the methods pursued will prove cruder than they might have done had I had the advantage of time for previous thought directed to the maturing of plans best calculated to secure the clearest results in some of the still unsolved matters that are of especial interest to bee-keepers; indeed, I already see more than one point where improvement could have been made. It is to be noted also that thus far I have been left to my own resources for the selection of points to be investigated in conducting the work, but it is to be hoped that in the near future direction may be given in this respect by a committee appointed by those who on account of their vocation or avocation are specially interested.

FOUNDATION FOR COMB HONEY.

No intelligent, well-informed, practical apiarist can avoid the rising of numerous questions with regard to the comb-foundations prepared for use in sections, some of which are: Are those of all makers equally good? Do the bees have a choice and consequently work more readily upon some than upon others? Has the thinner any advantage or disadvantage as compared with the heavier? Is that long made equally as good as that just out of the machine? Are all kinds in equal danger of a well founded accusation of leaving a "fish-bone?"

With the hope of throwing some light upon some of these, I procured a variety of foundations, to the number of eight, distinguished from each other either by weight, make or age. Each kind for the purposes of the experiment was distinguished by a letter of the alphabet, and the number of feet to the pound of each carefully determined, all of which was made a matter of record. Each was then cut to the same size and fastened into sections. Twenty-eight sections of each were used for the purpose of the experiment and each section was plainly marked on the top with the letter used to designate the kind of foundation with which it was filled. These sections were then put into cases without separators, alternately, each case, after the first, beginning with a section marked with a letter immediately succeeding the letter used in marking the final section of the previous base.

These cases thus prepared have been adjusted to colonies best fitted by their character and condition to work in all parts of the case equally. What valuable results, if any, can be expected? Worked out under such circumstances, can those least liable to produce "fish-bone" be determined by comparing the combs? Can those most profitable to the apiarist be determined by comparing the weights of the comb honey produced from each? I shall later desire the assistance of a few of the most competent apiarists in making comparisons of the septums of comb built from these different kinds of foundation.

IS COMB FOUNDATION PROFITABLE IN THE BROOD-CHAMBER?

This is an old but still unsettled question. To obtain some definite information if possible on this matter, I prepared four sets of hives, each hive being one section of the new Heddon. Each set consists of three hives—one filled with drawn comb, one with foundation, and one with frames furnished with narrow starters only. The sets are numbered 1, 2, 3 and 4, and those furnished with comb, foundation and starters are designated by the letters A, B and C, respectively. A record is made of the weight of each hive and of the cases adjusted at the time of hiving each swarm, and, also, of the bees in each swarm. Each hive with its cases and bees was again weighed upon the morning of the day succeeding the hiving to determine as far as possible the extent of change which had taken place in the denizens of the hives by their going from one hive to join another as they frequently do when there has been any commingling of bees in swarming. It will be seen that at the end of the honey season I can easily determine the increase in weight both of the brood-chamber and of the supers, and so be able, I hope, to draw some solid conclusion with reference to the comparative value of comb, starters and foundation for use in the brood-chamber.

These sets of hives, it has occurred to me, are well adapted to throw light upon another question which perhaps is not given the consideration it deserves, viz: Do colonies produce results in proportion to their strength, or is there a golden mean in this respect, and is it true that when that is either exceeded or come short of, there is less relative profit? How the above-mentioned sets of hives may help to elucidate this question will be evident when I mention the fact that swarms put into 1C, 2C, 3C and 4C weighed respectively 7½, 10¾, 5 and 4¼ pounds. Among the swarms hived upon combs and among those hived upon foundation there was also a considerable difference in weight, though not to the same extent. I am looking with great interest for the results, insofar as they may have a bearing upon this point, and much care will be taken that the exact facts shall be arrived at.

THE PRATT SELF-HIVERS.

Five of these hivers were procured and adjusted to as many hives, and as I must be brief I shall now only mention results thus far by giving an outline history of No. 2, deferring further mention till another time. To this hive the hiver was adjusted June 17, upon the issuing and return of a swarm. After this adjustment the queen was, of course, in the old brood-chamber, notwithstanding which, the swarm did not issue again till June 29th when it was allowed to return. On July 2nd it again issued and then became mingled with other swarms so that it was necessary in making a division to allot the proper portion which was returned to the hive. This colony, though furnished with a case of sections filled with well drawn comb, has done comparatively nothing in it.

LANGDON NON-SWARMING ATTACHMENT.

Lack of space will permit but a few words touching this invention by way of closing this article. Five of the attachments were adjusted to double the number of hives, on the 22nd day of June, since which time 17 swarms have issued from these hives; in each instance thus far the queen was returned to her own hive and the swarm to the sister hive, although it quickly became evident that it was worse than useless to do so.

Full details of this line of work may be looked for in my next article, from which I think any intelligent apiarist may easily determine the reason why the attachment has failed in these cases to honor its first name, and whether it can be made practical anywhere.

Lapeer, Mich. July 4, 1893.

Colorado Bee-Inspector's Views on Foul Brood.

Written for the American Bee Journal

BY J. B. ADAMS.

I notice on page 15, in Mr. McEvoy's method of curing foul brood, he thinks that dead brood will produce the disease. I have had considerable experience with this most-to-be-dreaded disease of bees for the past seven years, and as bee-inspector of this (Boulder) county the past two years, I have made this disease a special study. I have made several experiments, and I do not believe that Mr. McEvoy can produce the disease in this climate from dead brood.

A practical apiarist here, of 30 years' experience with bees, thought he could produce it from chilled brood, but he has been compelled to admit it a failure after trying every means in his power.

I have handled dead brood in all stages of decomposition, with no signs of the disease coming from it.

Again, Mr. McEvoy says that the empty hives need no boiling, scalding or disinfecting in any way. I do not believe Mr. McEvoy can run a perfectly healthy colony into an infected hive in this climate, without at least great danger of their taking the disease. Several here have tried it, even cleaning all honey and wax out, and in every instance they became diseased. We tried one hive that had been robbed two years previously, and it stood open during the time; it developed in the first brood that was started.

I think Mr. McEvoy's method of curing is the best I know of, but I would caution inexperienced persons to be very sure that none of the infected honey is conveyed in any way to healthy colonies.

Longmont, Colo.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.......Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

Alley's Queen-Rearing book, or "Thirty Years Among the Bees," gives the result of over a quarter-century's experience in rearing queen-bees, and describing the practical, every-day work. By Henry Alley. It contains an "Appendix," showing the improvements made in queen-rearing the last four years. Very latest work of the kind. Nearly 100 pages, with illustrations. Price, postpaid, 50 cents; or clubbed with BEE JOURNAL one year, for $1.30.

Dr. Miller's "A Year Among the Bees" is a book of over 100 pages. It commences with the necessary work in the spring, and runs through the entire year, detailing the methods of doing, as well as telling when to do, all that should be done in the apiary. Bound in cloth. Price, postpaid, 50 cents; or clubbed with the BEE JOURNAL for one year, for $1.35.

Have You Read that wonderful book Premium offer on page 221 ?

LETTER BOX
REPORTS & PROSPECTS

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Enormous Honey-Flow.

The honey-flow, which has been simply enormous here, is still going on.

H. DUPRET.

Montreal, Canada, Aug. 6, 1893.

Bees Doing Finely.

Bees are doing finely in this locality now. I just took off 24 pounds of honey from each of my colonies, and will expect to get 24 pounds again this fall.

FRED M. HOGAN.

Elk Falls, Kan., Aug. 8, 1893.

White Clover a Failure.

We have had three very poor bee-seasons in succession. Last year was an entire failure, and from the present outlook this won't be much better. I have 43 colonies of as nice bees as there are in Kentucky, and most of them are in good condition, and I have only taken 45 pounds of honey so far. The white clover failed to furnish any nectar this year. There seemed to be plenty of it, too, but what my bees stored was mostly from red clover. When I read in the BEE JOURNAL about persons in other localities taking honey by the ton, I feel like emigrating; but I guess it will come our way, bye-and-bye.

W. S. FEEBACK.

Carlisle, Ky., Aug. 5, 1893.

Managing After-Swarms, Etc.

I have been managing my apiary a little out of my usual way this year. I have always made it a practice to cut out all the queen-cells excepting one, about seven days after the first swarm has come off, and so avoid a lot of annoying after-swarms. The past winter I lost about 40 colonies, and had that many left, so I had plenty of empty combs.

I have an 80-acre farm which I am running with the help of my son, 15 years of age. I have cut 14 acres of hay, tended 17 acres of corn, and managed the bees by piling on top. I run the bees exclusively for extracted honey, and they have been allowed to swarm at their sweet will. With but few exceptions, and this I have found out, the after-swarms are more apt to run away, and they are harder to hive. On one occasion one came out in the forenoon, and my son tried to hive it, but it finally returned to the parent hive. About 3 o'clock the same day they came out again, and settled. I use Root's hiving-box for convenience in handling. This swarm was so flighty that I could not get them into the hive, but finally got them settled on the front of the hive, and thought they were going in. Having hay to draw, we went for another load, and then went to see if the bees were in the hive, and still finding them on the outside, I gently, with a little stick, pushed them down, and they started running in, but before they were all in they took wing and flew over the barn and three acres of timber, alighting on the other side of it, so I let them stay out that night, and they had to take a shower and a heavy wind-storm. The next morning I was on hand early, and found the bees pretty weak.

I have come to the conclusion that after-swarms are harder to handle, and more apt to abscond. They should be treated to a cold-water bath. I don't think my bees have quite doubled this season. I have had more to abscond (3 swarms) this year than I ever had since I have kept bees, and that is 16 years. I have extracted 800 pounds of honey, and think that as much more is ready. I think the crop will not be above the average in this locality. The basswood trees were badly eaten by worms, so the blossoms were scarce. The basswood honey is the main crop here. Since I have kept bees, I think I can safely say that I have obtained 10 pounds of basswood to one pound of any other.

A. C. SANFORD.

Ono, Wis., July 24, 1893.

Introducing Queens.

Who has tried letting a laying queen run in at the entrance of a hive on the day they cast their first swarm, with just giving the swarm a few whiffs from the smoker, after the queen has gone in ?

I have done so several times, and the queens have always been accepted, and no second swarms have been cast. This saves cutting out queen-cells, and, so far, it seems to be a safe way.

GEO. S. WHEELER.

New Ipswich, N. H.

How Fast Bees Go for Honey.

My bees were bringing in basswood honey from trees two miles away. As I sat watching them, I wondered how long it took a bee to go that distance, load and return. So, to decide the question as nearly as I might be able to do, at night I closed the entrance to one hive with wire-screen. The next morning, after the other colonies were fairly at work, I removed the screen, and, watch in hand, awaited results.

The first bee returned in just 15 minutes; others a little later, the time of absence varying, as nearly as I could judge, from 15 to 18 minutes.

Here is another curious fact attending this experiment. When I raised the wire-screen there were 20 to 30 bees under it, trying their best to escape. I expected to see them fly at once, but they did no such thing. Their excitement ceased the moment the screen was raised. In less than a minute *every bee* went into the hive, and it was nearly two minutes before one came out. Then they quietly entered on their day's labor. D. C. Leach.

Walton, Mich., Aug. 4, 1893.

Had a Splendid Honey-Flow.

This vicinity had a splendid honey-flow until the last week in July, when it was stopped by a very severe drouth. All my colonies that were in good condition on June 1st, stored from 50 to 75 pounds of surplus comb honey each, mostly all white clover. L. Reichle.

Frankenmuth, Mich., Aug. 10, 1893.

Honey Crop a Fair One.

The honey crop from clover this year is fair. I got 2,400 pounds in the comb, and 1,600 pounds of extracted honey. I started with 60 colonies. There is not a very good outlook for a fall crop.

The Albino bees did fairly well on clover; they stored about 60 pounds of comb honey and swarmed once. I liked them so well that I ventured to rear a dozen queens of this beautiful variety. Some of my best strain of Italians yielded 100 pounds of comb honey per colony. They are a fine strain for business.

It was quite hot here about July 13—97 degrees, Fahr., in the shade. My honey crop, all told, is about 5,000 pounds, over 3,000 pounds of it being in the comb.

Frank Coverdale.

Welton, Iowa, Aug. 3, 1893.

Shallow Frames and Italian Bees.

I have read that last winter was the hardest that we have had for years throughout the United States. I wintered 100 colonies last winter, but I am a small bee-keeper to-day, for I lost all but 25 colonies last spring. I sold a few colonies, leaving me to-day 14 good, strong colonies, all working in the sections.

The bees I have kept until to-day have been German or black bees, which I believed to be the hardiest and best honey-gatherers. The frames I used were those of the Langstroth size, in chaff, Simplicity, dovetailed and double-walled hives and bee-houses; also a few Quinby standing frame hives. I also tried other frames and hives, but I believe that the Quinby standing frame is the best in the world to-day. They are easy to be handled, are moth-proof, and can make the hives large or small, as desired. For winter they are as good as any, and are the cheapest hives in use, but too heavy to move from out-apiaries when filled with honey, so I adopted a half-depth Quinby frame, as I now have a good chance to change frames and hives. I will also try a new strain of bees as soon as possible.

Before going any further, I would like to hear from others that are using the shallow frames, as manufacturers of bee-hives never advertise this kind of hive and frame. I expect to push matters on shallow frames in my apiary, and hope to have at least 100 colonies next winter, but I am done with the Langstroth or hanging frames.

I will also try pure Italian bees, or some other good strain of bees, if I can get them as good as I had them in Germany. I find the black German bees all right, but I may find something better. I also find my shallow frames all right so far, but I would like to know what others think of them.

My shallow frames are 4¼x17 inches, inside measure. I use 16 frames for brood, and 16 for sections, or 32 for sections for a 3-story hive. The hives have side-entrances; the work can be done from the rear or top, as desired. The side, top, and rear can be removed, as the Van Deusen clamps are used.

My 40 colonies of bees in Hanover, Germany, came through the winter again all right. John H. Blanken.

Jersey City, N. J., June 27, 1893.

Not Up to the Average Crop.

The average honey crop in eastern Iowa is not up to other years, owing to the scarcity of bees. That flattering honey-crop reported in *Gleanings* has dropped the prices of honey about a cent per pound throughout the West, perhaps. We must remember that *Gleanings* is a honey purchaser, as well as producer. Thanks to the Bee Journal for mildness along this line.

W. P. Faylor.

Colesburg, Iowa, Aug. 8, 1893.

One of the Worst Drouths.

One of the worst drouths is prevailing at present that we have had since 1864, if not the worst ever known. The last heavy rain fell on May 4th. During May and June a few light showers kept flowers all right for nectar, although it was too dry for farm crops. The middle of July all vegetation began to suffer, and at present late corn, late oats, and buckwheat, look as if they would be a failure, even with plenty of rain immediately. Seeding will be a poor catch, and meadows are injured for a hay crop another season. There will be no fall surplus honey. A few miles away the dry season came later, but it "got there," and seems to stay. Grasshoppers are the thickest known in many years.

J. H. Andre.

Lockwood, N. Y., Aug. 8, 1893.

Great Premium on page 221 !

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, Aug. 12, 1893:

CHICAGO, Ill.—We quote fancy new honey at 18c.; No. 2, at 16c.; amber, 15c. Beeswax, 22@25c. We have had some shipments of fancy new stock which sold at once. J. A. L.

CHICAGO, Ill.—The receipts of honey are quite liberal; the very best grades are bringing 15@16c. The demand just now is hardly equal to the supply, and we are receiving many inquiries concerning the market. We are of the opinion that it will not be any higher but may go lower, as money is very scarce and people seem to economize in the way of honey purchases. The darker grades are not meeting with any demand. Nearly all of the new honey is of very fine quality. Extracted is bringing from 5@7c., according to color, flavor and style of package. Beeswax is very dull at about 20@22c.
R. A. B. & Co.

CHICAGO, Ill.—Honey this year is being placed on the market earlier than last season, but the demand is restricted and will be light until small fruits are out of the market, and with the prospect of a large crop, buyers will be particular as to quality, and the best will find ready sale upon arrival. No. 1 comb, 16c Extracted, as to quality, 5@7c.
Beeswax—22@24c. S. T. F. & Co.

KANSAS CITY, Mo.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white. 7@7½c.; amber, 5@6.
Beeswax—20@23c. C-M. C. C.

CINCINNATI, O.—Prices for comb honey are nominal. with small lots of new on the market. The best sells at 14@16c. Extracted honey brings 5@8c. Demand is slow from manufacturers; arrivals fair.
Beeswax—Demand fair, at 20@23c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—Our market remains very quiet. Extracted continues to arrive freely; the market is well supplied, and the demand is light. We quote: Southern, common, 60c. per gallon; fair to choice, 65@75c. per gallon; California, 6@6½c. per lb. No new comb honey on the market as yet. Beeswax. gradually declining; 25c. for good yellow at present. H. B. & S.

BOSTON, Mass.—New honey is coming in slowly, and selling at 16@18c. for best 1-lbs. Extracted, 8@9c. No beeswax on hand.
B. & R.

Albany, N. Y.—Although honey market is not fairly opened yet, we are reciving a few lots that sell well, and indications are that honey marketed early this year will bring the best prices. especially comb honey. White comb, 15@17c.; medium, 14@15c.; dark, 12@13c. Extracted moves slowly. although white is not plenty and sells at 7½@8c.; amber, 7@7½c.; dark. 6@7c.
Beeswax—Quiet at 26@28c. H. R. W.

MINNEAPOLIS, Minn.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white conb honey. 18@20c.; No. 1 white. 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. Lamon, 44 and 46 So. Water St.
R. A. Burnett & Co., 161 South Water Street.

New York, N. Y.

F. I. Sage & Son, 183 Reade Street.
Hildreth Bros. & Segelken, 28 & 30 West Broadway.
Chas. Israel & Bros., 110 Hudson St.

San Francisco, Calif.

Schacht, Lemcke & Steiner, 10 Drumm St.

Minneapolis, Minn.

J. A. Shea & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

Hamblin & Bearss, 514 Walnut Street.
Clemoms-Mason Com. Co., 521 Walnut St.

Albany, N. Y.

H. R. Wright, 326 & 328 Broadway

Hamilton, Ills.

Chas. Dadant & Son.

Cincinnati, Ohio.

C. F. Muth & Son, cor. Freeman & Central avs.

Amerikanische Bienenzucht is the name of a bee-book printed in the German language, which we now have for sale. It is a hand-book on bee-keeping, giving the methods in use by the best American and German apiarists. Illustrated; 138 pages; price, postpaid, $1.00. It is just the book for our German bee-keepers. We club it with the Bee Journal for one year, for $1.75.

Read our great offer on page 221.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE—High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

WANTED—A good girl to do general house work in a family of four persons, two being children. A Methodist (or protestant) preferred. Reference—George W. York & Co.
Address, MORTON J. DATE,
3Atf 189 Washington St., Chicago, Ill.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported	$9 50
Blackburn Bros., Lamont, Iowa	1 00
L. W. Rich, Lamont, Iowa	25
John Elliott, Lamont, Iowa	25
Chas. B. Allen, Central Square, N. Y.	25
Total	$11 25

Family Papers.—In the June number of *Home and Country Magazine*, the editor shows it to be his desire to please the tastes of others besides the serious readers by serving up a humorous morsel under the title of "Family Papers," which are contributed by Theophilus Rasp. In it Theophilus himself is the hero (or we may say victim) of a baby-marketing expedition, and its consequent complications. A darky is delivered to his house instead of the one he selected, and the trouble begins. The "Papers" are very interesting, and bear such evidence of sincerity that they touch our heart-strings, causing us to feel a fellow-sympathy for Mr. Rasp, and we will surely give him a call the first time we visit New York, to enable us to get better acquainted.

Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the BEE JOURNAL for one year, for $1.15.

Are YOU Coming to the ✻ ✻

WORLD'S FAIR?

If so, you should secure **Accommodation in advance** of coming to Chicago

Young Ladies Specially Cared For

You are invited to correspond **at once** with

MRS. J. P. COOKENBACH,
987 Wilcox Ave., CHICAGO, ILL.,

Who will be pleased to help all desiring to have a comfortable and pleasant place to stay while visiting the World's Fair, and at very **reasonable rates.**

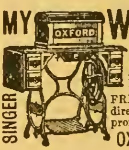
REFERENCE: By permission, "**American Bee Journal.**"

C. A. BUNCH,
NYE, IND.,

Will mail you Choice Tested Italian

Queens at $1.00 Each.

Mention the American Bee Journal.



MY WIFE SAYS SHE CANNOT SEE HOW YOU DO IT FOR THE MONEY.

$12 Buys a $65.00 Improved Oxford Singer Sewing Machine; perfect working, reliable, finely finished, adapted to light and heavy work, with a complete set of the latest improved attachments FREE. Each machine is guaranteed for 5 years. Buy direct from our factory, and save dealers and agents profit. FREE TRIAL and FREE CATALOGUE.

SINGER

OXFORD MFG. CO., DEPT. Chicago, Ill.

Mention the American Bee Journal.

Fine Italian Queens.

Tested, $1.00 each; Untested, 60c.
From Best Imported Mothers Only.

ALL young, and for Gentleness, Industry and Uniformity of Color, their Bees are unsurpassed. Safe delivery. Must send P. O. Money Order on Decatur, or remit by registered letter. **CLEVELAND BROS.,**
DECATUR, Newton Co., MISS.

26A9t *Mention the American Bee Journal.*

O Sample of the only 50c a year 16-page ag'l & home weekly; circulars, etc., of best household steam cooker; & terms to agents, all for 2c stamp. Agents clear $50 a week.

FARMER'S CALL, Quincy, Ill.

Sample paper free. New subs., 1 year, 25c.; 3 yrs. 50c.

IF YOU WANT **GOOD QUEENS**

That produce Large Per Cent. of **GOLDEN WORKERS, by return mail,** send 75c. to

James F. Wood, N. Prescott, Mass.

See last week's Journal for full description.

7Dtf *Mention the American Bee Journal.*

Established in 1861

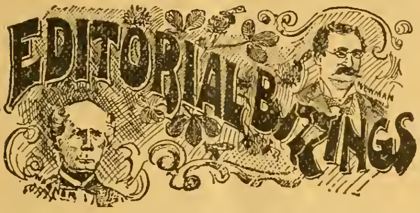
THE AMERICAN

BEE JOURNAL

Oldest Bee-Paper in America

GEORGE W. YORK, Editor. | Devoted Exclusively—To Bee-Culture. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., AUG. 24, 1893. NO. 8.



“**Mistress Apis,**” dressed in brown,
  Markets mostly out of town.
She goes to Clover Fields for honey,
  But never pays a cent of money.
Her flour she buys of those who keep
  A stock of pollen fresh and cheap
For she must make some good bee-bread,
  That many babies may be fed.
She's such a worker! For you see
  She is a little honey-bee.
— *Youth's Companion.*

◆

Michigan's Experiment Apiary we are permitted to show to our readers this week, through the kindness of Bro. Hutchinson, who loaned us the engraving. It is found on page 245, in connection with Mr. Taylor's report of the experiments with the Langdon non-swarming attachment.

◆

Mr. J. T. Calvert, the most excellent son-in-law of Bro. A. I. Root (and also manager of their great bee-supply business in Medina, O.), recently paid Bro. Holtermann and the *Canadian Bee Journal* a visit. Mr. Calvert was on a bicycle tour, taking in the glorious Christian Endeavor Convention held at Montreal, Quebec. We shouldn't be surprised to hear that Mr. Calvert, with Bros. A. I. and Ernest Root, were going to the World's Fair on their “wheels,” as they are all expert bicyclists. If they do, we'll agree to “wheel” into line our best and truest—welcome.

That Somnambulist has not been sleeping very much of the time the past month or so, is clearly shown by the August *Progressive Bee-Keeper.* Why, he has gone to work and summed up some 20 of the biographical sketches that have appeared in the BEE JOURNAL beginning with Mr. B. Taylor and ending with Master Ralph Benton! You needn't tell us that a person can go Somnambulisting around a very great deal, and also write as much and as entertainingly as does the Somnambulist or under consideration. “Sommy,” why not sign your right name occasionally, just for a change?

◆

The Canadian Bee Journal for August is received, and it *is* a *great* improvement over its former self. Why, it shows a vigor and vim that is surprising, and also refreshing. Editor Holtermann takes “holt” as if he meant business, and it now looks as if Canadians were going to have a bee-paper that is not only a credit to the printer's art, but also an honor to the Old Dominion. Here's our editorial ☞, Bro. H., that will give you a hearty shake when you come to the North American convention in October next.

◆

Something for Bostonians.—On page 243 of this issue of the BEE JOURNAL, our good friend, Mr. W. A. Pryal, of California, tells something about a new product that the Golden State is now turning out, and which should very much interest every Bostonian. It is BEAN HONEY! Just think of it—Boston's best brown bread and baked beans, with beautiful bean honey gathered by busy, buzzing bees! Great is the B-business

Photography is the new "hobby" of Bro. Hutchinson. If a bee-keeper don't want to be surprised by his picture appearing in the *Review* hereafter, he'd better keep away from Bro. H. Of course this is all in fun, but, seriously, Bro. Hutchinson is now studying the subject of photography, and no doubt his paper will soon rival Harper's or other illustrated periodicals, in the line of pictures. If Bro. H. was publishing a weekly paper, he'd hardly find time to "monkey" with a camera, or anything else. How we should like to have *time* for recreation of some kind, but *we* will have to be satisfied with the "liking" or "wishing" we had it. It means *work* to get out a weekly paper like the BEE JOURNAL, and always have it "get there" on time. But we are willing to work so long as the subscriptions keep coming in well, and our readers are pleased.

Bros. Whitcomb and Kretchmer favored us with a call on Saturday, Aug. 12th. The former has charge of the Nebraska State apiarian exhibit at the World's Fair, and the latter that of Iowa. They are both grand, good men, and will see to it that their respective States are well up to the front in the way of a honey exhibit. Bro. Whitcomb is the editor and publisher of the *Telegraph*, at Friend, Nebr., and Bro. Kretchmer is well-known as an excellent bee-supply manufacturer and dealer at Red Oak, Iowa.

Mr. B. Taylor, in the *Farm, Stock and Home* for August, says that at the end of the white honey season, he removes all surplus honey from the hives, crates the finished sections, and extracts the partly-filled and uncapped combs. The extracted honey thus obtained is, if cured properly, of the highest grade for table use, and sells for nearly the price of comb honey if customers are made acquainted with its high excellence.

The sections containing the empty combs he returns to the supers, and some pleasant afternoon sets them all out without covers, so the bees can get at them without hindrance, and clean the combs of every drop of adhering honey. In the evening, after the bees have ceased to fly, the cases are carried and stored into the bee-proof honey-house. A "handy comb-leveler" is then brought into use, and the combs leveled to even thickness, and set carefully away for next year. By the use of prepared combs he is quite sure he can double the white honey crop.

The hives, after the honey is removed, will have an extra hive containing either frames of drawn combs, or full sheets of brood foundation, placed on top of each colony to be filled with dark fall honey. There should be a queen-excluding honey-board placed between the brood-chamber and these hives, so no brood can be started in them. He keeps the honey thus obtained for feeding and rearing an army of bees in time for next year's clover and basswood season.

The Daughter of Mr. J. E. Frith, Secretary of the Oxford Bee-Keepers' Association, living at Princeton, Ont., died suddenly shortly after having received a bee-sting on the temple. Mr. Frith is well known among Canadian apiarists, and will have the heartfelt sympathy of bee-keepers everywhere, in this sudden bereavement.

Mr. S. H. Clark, of Elwood, Iowa, we learn from the *Maquoketa*, (Iowa) *Record*, conducts the post-office in Elwood, having held his position since President Arthur's administration. Besides this, he is one of the most successful bee-keepers in his county. Why wouldn't keeping a post-office go well with bee-keeping? Dr. Mason tried it awhile, and it seemed to work all right—but the bees were more certain stayers than the post-office. Perhaps because the bees were not subject to political influence.

Apiarian Experiment Stations.—We have received the following from Dr. Miller in reference to this important subject, now being discussed in the bee-papers. Read it, and if you think you have anything of value to present, send it in. Here is what the Doctor says:

FRIEND YORK:—I'm glad to see you interested in the matter of experiment stations for bee-keepers. The *Review* has given us a fine leader on the subject, and I hope it will keep stirred up. You can't make out from that sentence whether I want the *Review* or the subject of experiment stations kept stirred up, so I'll say I mean both.

I am in accord with you in the view that it is not best to have a station for each State. If two States are about alike as bee-keeping States, instead of having a station in each, thus doubling the expense, it would be better to have one, and let a little more money be spent on that one than would be spent on each one separately, if there were two.

But there are a good many things to be considered before settling down upon any given number of stations in the United States as the most desirable. In the first place, we must do as we can. Legislatures are not always easily handled just as one would wish, and it may be that an appropriation can be had in some of the States and not in others. We should be willing to take whatever we can get, and not always insist too strenuously on what we would like. If bee-keepers had insisted that Michigan should unite with three or four neighboring States in establishing the station now in existence, it is just possible that the effort would have failed, whereas by having it a purely State institution it was obtained.

A single experiment station for the whole of the United States could be made of great value, if rightly conducted. Indeed, I am not sure that a one-horse affair in each of the States would be as useful as to put all the money into the one now under the control of Friend Taylor, so that he could devote his whole time to it, employ all the assistance needed, and go into experiments to the fullest extent upon every unsettled point of importance. Upon many points experiments in one State would be equally conclusive for all. If experiments were needed to prove that eggs are laid by queens, and not drones, it would hardly matter whether such experiments were made in Maine or Texas.

As to many things, however, conclusions reached in one section would not be of very great value in another. I am not specially interested in determining the value of some Southern honey-plant which I could get to live only in a green-house, however valuable it might be to some one in Florida. And when you come to plant stations in different localities, basing the locations on the difference of localities, it is a little doubtful if four or five would be found enough. Possibly one or more head stations might do to work out general problems pertaining to locality.

There is an advantage in having more than one station that is not to be despised, even although nothing but general problems are to be solved. It is that a series of experiments conducted at one place might have some element of error about them that would not exist in a series conducted at a different station, and thus one station be a check upon another. Besides, a larger number of experiments is often more conclusive than a smaller one, no matter how carefully made.

In two important respects the station of Michigan has set the right pace. First, it has at its head a genuine bee-keeper, and not a man who has never before been heard of as such. Second, the head of the station is in close touch with bee-keepers, communicating directly and constantly with them through the medium of bee-journals obtainable by all, and not obliged to wait and make out a report to someone else, a report which bee-keepers cannot readily obtain.

I may as well own up that I have no very fully matured plan as to just what a bee-keeping station should be and do, beyond the thought that it should help to solve the thousand and one questions that are constantly coming up, and that individual men are now trying to solve for themselves at great cost and inconvenience. But it will do no harm for us to talk the matter over. Michigan has done a grand thing. If all the States should chip in and make the Michigan establishment a national one on a broader basis, it would be greatly to our advantage. If, on the other hand, three other, or a dozen other, like concerns should be started, that would be a thing of great advantage. Keep the ball rolling, and let us hope good will come of it in some direction. C. C. Miller.

Care of Honey and Combs.—Hon. R. L. Taylor, in the *Bee-Keepers' Review*, gave the following directions for the keeping of comb honey, which it will be well to heed:

> After the honey is off the hive, it is highly important that it should be well cared for. I pile it up on end, that is, put the cases on end so as to be fully open to the circulation of the air in a warm, dry room—the warmer and drier the better, so that it is not warm enough to cause the wax to yield. Unless one allows the wax-moth to breed extensively about the premises, I think there need be no fear of its doing injury to the comb honey. I never knew any injury from this cause when disposed as I have indicated above.
>
> I consider it important also that it be allowed to remain in the cases until it is to be put on the market. It is better there than inclosed in shipping-crates, besides the comb is more liable to injury than when it becomes thoroughly ripened, and the weather somewhat cooler.
>
> It is always timely in warm weather to utter a warning against the danger of injury to combs from the wax-moth. They may be safely kept for a time in a very cool cellar. If kept where it is warm they must be kept separated an inch or more, and where the air has free circulation, but on hives where bees can care for them, is the best place of all.

Honey as Food and Medicine is just the thing so help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the Bee Journal for description and prices.

STRAY STINGS *From—The Stinger.*

"Next cum along wuz little Miss Bee—um,
hum!
She cum roight from her hoive—bee-gum!"
Sings Pat as cheerily on he goes,
Till pretty Miss Bee alights on his nose.
"Phat's that?" cries Pat. "Oh! Ouch!
Begorry!
If that's your kiss, for your feller Oime
sorry!"

The Chinese are said to give the bees a wide berth in California. The little insects must have said, "The Chinese must go."

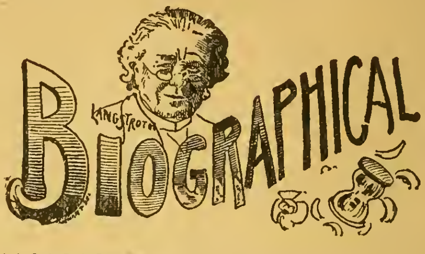
Mrs. Jennie Atchley is trying hard to be the big queen-bee in the great hive of apicultural economists. But none of the males in the same colony want the distinction of being the biggest drone. Just see what there is in a name, sometimes!

Why don't some enterprising bee-keeper of a literary turn of mind get out a little volume of all the meritorious poetry that was ever written about the honey-bee? It seems to me that such a book should have sufficient sale to warrant its publication.

I would like to know what New York is going to do when the Fair is over with all that comb honey she has piled up in those cases in the apiarian section in the Agricultural Building? Will she send it to California, in order to show that State by the Pacific what a great honey-producing country the Empire State is? If she does, won't it be hard on the apiarists of the Golden West who were misrepresented by their State Commissioners?

It has long been supposed that millers ground out flour, but the Miller of *Gleanings in Bee-Culture* reverses the operation and grinds out straws. If the good Doctor got a little further down the straw he would have been able to use roots in his grist-mill. It is a long way, comparatively speaking, from the head of the straw to the roots, and, perhaps, the Doctor chose the medium instead of the extremes, at the same time hoping to work toward the ends. If this be so, we would like to know which he proposes to grind first, the Roots or the "Heads of Grain!"

"**Bees and Honey**"—see page 250.



MR. L. WOOLVERTON.

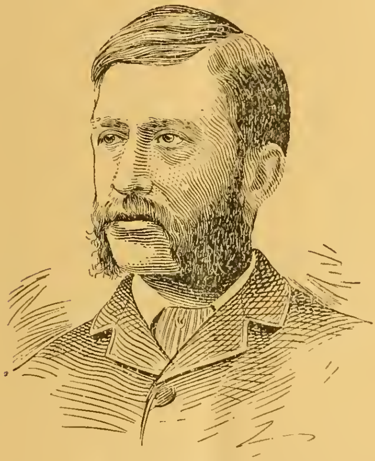
We have been requested by one of his many good friends, to present in our biographical department Mr. Linus Woolverton, M. A., the popular and efficient Secretary of the Fruit Growers' Association of Ontario, Canada, and also the able editor of the *Canadian Horticulturist.* Mr. W. deserves the thanks of all bee-keepers, for, having carefully studied the subject, he knows that bee-keeping and horticulture have much to bind them together.

In the journal of which Mr. Woolverton is editor, there is a department for those engaged in fruit-culture who are also interested in bee-keeping. In that department articles have appeared from the pen of such well-known Canadian bee-keepers as R. McKnight, of Owen Sound; S. Corneil, of Lindsay; and R. F. Holtermann, of Brantford, the new and genial editor of the *Canadian Bee Journal.* Mr. Holtermann recently had in the *Canadian Horticulturist* an illustrated article, six pages in length, upon the benefit the bees confer through fertilization of flowers.

Mr. Woolverton, we may say further, has charge of the Canadian fruit department at the Columbian Exposition. He can be found at almost all times of the day in the Horticultural Building on the Fair Grounds.

The following biography was written some time since for the *Canadian Horticulturist*, where it appeared in connection with a picture of Mr. W., all of which we take pleasure in reproducing for the benefit of our readers:

Mr. Linus Woolverton was born on Dec. 12, 1846, at Grimsby, Ont. The family of Woolvertons to which he belongs, is one of the oldest of this early settled Niagara district, and trace their family history back through 200 years to England, where there are still found several places of the name. His father, Mr. C. E. Woolverton, who had himself received his education at Madison University, New York State, so highly valued university advantages, that he spared no pains to give his son a thorough college training. This course was fully appreciated by the son, whose thirst for knowledge and love of books has always been one of his leading characteristics.



L. WOOLVERTON, M. A.

After due preparation at Grimsby High School, and one year at the University at Rochester, he entered the University College at Toronto, taking the first scholarship ($120) ever taken at senior matriculation, in the department of classics. During this course at the University, he gave much attention to the study of natural science, and this has been of the utmost advantage in later years to him in his horticultural pursuits. In due time he was granted the degrees of B. A., in 1869, and M. A., in 1870. His first thought then was to pursue the study of law, and, with this in view, he entered a law office in Toronto, and spent a portion of the winter of 1869-70 in legal studies.

In October, 1870, he married Miss S. F. Lorimer, daughter of the late Rev. A. Lorimer, B. A., then Librarian of the University of Toronto. For a term of 15 years after graduation, he held the position of examiner in Classics and English at Woodstock College—a position he felt obliged to relinquish on accepting the work of Secretary of the Fruit Growers' Association of Ontario.

Just about this time Mr. A. M. Smith's retirement from partnership in the nursery business with Mr. W.'s father, made an opening for the son to come into his place, and carry on a business to which he had already given some attention. The business was largely local, and no agents were employed, as the demand for nursery stock in this fruit section was at that time very considerable.

After a few years Mr. Woolverton became so enamored with fruit-growing, that he resolved to quit the nursery business and give his whole attention to the former; and, with the consent of his father, who gave up the whole farm to his management on the most generous basis, also deeding him a portion of it, he gradually planted out 100 acres in fruit-trees. This farm is known as "Maplehurst Fruit Farm," and is one of the largest of its kind in Ontario; certainly no other has such a large variety of fruits of every sort under test. In grapes alone there are about 90 varieties, strawberries about 50, and a large collection of cherries, pears, apples, peaches, plums, etc.; and here is where the practical experience is gained, necessary for the proper and intelligent conduct of a horticultural journal. It was the consideration of his practical experience in horticulture, combined with his educational advantages, that led the Board of Directors of the Fruit Growers' Association to give him the appointment of Secretary and Editor, on the retirement of Mr. D. W. Beadle, the former Secretary.

The management of this fruit farm requires much attention, and would engross one's whole time; but, by engaging a competent foreman, Mr. Woolverton has been enabled to give almost his whole time to Association work.

For many years previous to his appointment as Secretary, he was a regular attendant upon the meetings of the Assocation, having been present at Hamilton as a boy at some of the very first meetings, and almost regularly ever since. As a writer, he was among the early prize essayists of the Association, as will be seen by consulting some of the older reports; and to the earlier volumes of the *Canadian Horticulturist* he contributed a series of articles, entitled, "Horticultural Gossip."

In 1885 he also wrote a series of

articles for the *Canadian Farmer*, entitled, "Seasonable Hints for Fruit Growers;" and in 1886, a series for the *Farmers' Advocate*, entitled, "Hints for Amateur Fruit Growers." Last year he wrote an essay for the Hamilton Scientific Association, (entitled, "Some Problems in Horticulture," dealing especially with the fungi affecting fruits), a body of which he had previously been made a corresponding member. Three years ago he was elected Vice-President for Ontario of the American Pomological Society, to whose report he has contributed considerable matter.

Lately, through the legacy from a relative, Mr. Woolverton has been enabled to build a beautiful house, in which the *Horticulturist* has, for the present, a convenient and suitable home. The office occupies one of the principal rooms on the ground floor, while the large attic is stored with back numbers, bound volumes, reports, electrotypes, etc., the property of the Association. A.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Supposed Trouble with Bees.

I have one colony of bees that lived through our last hard winter, although they suffered a great loss. They seemed to do extremely well until July 1st. As at that time its hive was packed full of honey and young bees, and had not swarmed then, I put on some small boxes. They went to work immediately in them, and in a few days had some filled. Then they cast a very large swarm, which I hived all right, but the old swarm stopped working in the small boxes, only to carry out what they had put there, and up to date have not done any more, nor have they swarmed again. I am a beginner, and would like to know the trouble.

I find a great many things in the bee-papers that I do not have to ask for, but I would like to ask, Are all bee-keepers troubled with the bees filling between the tops of the brood-frames so that the comb has to be broken if the brood-frames are removed?

Also, does smoking bees so as to remove the frames stop their working for any length of time?

I have one hive in use that has an entrance at the top of the frames, and also at the bottom, but the bees use the top entrance most. Is this a good kind of hive? E. H. HALLETT.

St. Johnsbury Centre, Vt., July 31.

ANSWERS.—The trouble with your bees is not, as you suppose, something out of the usual line. It is in the usual course, and just what you may always expect under similar circumstances. Your colony did "exceedingly well" up to the time of swarming, and then did poorly after swarming, just because it had swarmed. You see, swarming took away its strong force, reducing it to the condition of a very weak colony, and then it did just what you might expect from a very weak colony. If you could, by some conjuring, have persuaded it to have abstained from swarming, you might have had a continuance of its good work in storing surplus honey.

A division of forces, as made by swarming, seems not to have been a desirable thing in your case. It is exceedingly difficult, according to the testimony of nearly all bee-keepers, to keep the whole force of bees at work in the old hive, once they have taken a notion to swarm. Failing in this, the next best thing is to try to get as much of the force as possible into the new hive containing the swarm. This you can do by putting the swarm on the old stand at the time of swarming, removing the old hive a few feet away. Then all the old bees that have been left in the mother hive, when they go to the fields for plunder, will, on their return, fly back to the old stand, making the swarm very strong, and the old colony correspondingly weak. Put supers from the old hive on the swarm at once, and let the old colony build up at its leisure.

In reply to your second question, the probability is that all bee-keepers are more or less troubled with the nuisance of brace or burr combs, unless they take some steps to prevent it. The first thing that seemed to offer any relief in the case was that slat honey-board, invented by James Heddon. In spite of the expense of the honey-board, and the dauby nuisance whenever it was lifted from over the top-bars, it was a real boon, well deserving thanks to the inventor. Later, immunity from trouble was claimed by using one or more precautions. J. B. Hall, an able Canadian bee-keeper, succeeded by having top-bars an inch thick. Others claimed success, by having a small space, hardly ¼ inch between the sections and top-bars. Fair success may be had by means of this small space in connection with a top-bar not less than ⅝-inch thick. A thickness of ⅞-inch may be better. Possibly the space between each top-bar and its neighbor may have some bearing in the case.

Smoking bees certainly stops their work to some extent, but not for any length of time, as you may readily see by noticing how soon they will fly out to work after the disturbance ceases.

It probably makes no great difference where the entrance to a hive is. Bee-keepers in general prefer an entrance at the bottom, one reason being that it makes it so much easier for bees to carry out dead bees, or other refuse.

Which is the Best Hive?

I am very desirous to know which is considered the best kind of hive for one running a large apiary in this part of the world. I got hold of Heddon's book, "Success in Bee-Culture," and was enraptured with the description, etc., of his new hive, and at once wrote to three or four bee-supply dealers in England for estimates for some of the Heddon hives. Imagine my astonishment (after the way in which Mr. Heddon lauds his hive, quoting the opinions of old and established bee-keepers in America in its favor) at receiving such replies as the following:

"We must refuse to make the Heddon hive here; it was such a grand failure in this country when introduced, and so many of us lost money by it, that we do not care to touch it again."

So says *one* of our English firms. Another firm writes:

"The Heddon hive, to my mind, is a failure. I tried it. But give me the orthodox brood-nest and surplus chambers; and so seemed to say American and British alike, as I should say not ½ per cent. of those combined work *a la* Heddon,"

What does Mr. Heddon say to this? and what is the opinion, I would much like to know, of the majority of apiarists on your side of the water? If not the Heddon, what style of hive is most favored in the United States?

S. A. Deacon.

Cape of Good Hope, S. A.

Answer.—So far as we know, Mr. Heddon has never expressed any change of opinion as to the value of his invention. Some others use it, and speak highly of it. The great majority, however, seem to set no great value on its peculiar features.

It is not a safe thing to say what may be the best hive for you, without some knowledge of the difference between your place and the States.

Your last question is more easily answered. Probably the great majority of the bee-keepers of the United States favor a hive not varying greatly from the original Langstroth. Just at present, what is called the Dovetail seems to take the lead. It takes its name from the dovetail corner-joints of the body of the hive itself. This makes probably the strongest corner-joint ever used in a hive, more free than any other from warping so as to leave open joints.

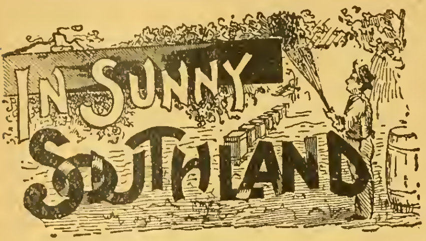
The frame in greatest favor is 17⅝x-8⅜, outside measure. A strong tide has set in, in favor of frames with fixed distances, that distance being generally 1⅜ inches from center to center.

The popular idea is to have 8-frame hives for comb honey, but there are not wanting for those who insist that 10 frames are better. For extracted honey the larger hive is preferred.

After having said thus much, it is only fair to say that there are different patterns of hives almost without number, a large number of bee-keepers seeming to feel that upon them is laid the duty of trying to invent something just a little different from anything previously in existence.

Bee-Keeping for Profit.—The second edition of Dr. Tinker's new book is now ready to send out. It gives his New Management complete, and three years of added experience in its use by himself and other bee-keepers. Several new illustrations have been added, besides much new matter in regard to the use of perforated zinc. Price, 25 cents, postpaid, or clubbed with the Bee Journal for one year for $1.15.

Amerikanische Bienenzucht is the name of a bee-book printed in the German language, which we now have for sale. It is a hand-book on bee-keeping, giving the methods in use by the best American and German apiarists. Illustrated; 138 pages; price, postpaid, $1.00. It is just the book for our German bee-keepers. We club it with the Bee Journal for one year, for $1.75.



CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

How to Rear Drone-Bees.

MRS. ATCHLEY:—In making a hive queenless to rear drones, do you depend upon a laying-worker for the eggs? If so, do you give them drone-comb to lay in? Please answer through the AMERICAN BEE JOURNAL. J. B. RYBURN.

Waxahachie, Texas.

Friend Ryburn, I fear you have a wrong conception of the idea. I place a drone-comb in the hive with one of my finest breeders, and when she has deposited it full of eggs, I take it out and place in a strong queenless colony to let them take care of them, as they will do so without destroying them, when if left in the hive with the breeder, the bees may keep them all right, and they may not, as in a little slack off in the honey-flow, they will likely destroy the drones. So if you wish to have them well taken care of without any risk, it is better to put them in a queenless colony, unless you intend to feed the colony to keep them going, which is expensive. The drones from a laying-worker I consider worthless. JENNIE ATCHLEY.

◆

Visitors to Texas, Etc.

J. W. Taylor, of Ozan, Ark., is visiting me this week. He is looking at Texas, and is well pleased.

Bee-keepers coming to visit us have no hotel bills to pay. If they can live on what average bee-keepers eat, there will be no hotel bills.

I have also had other visitors, but Bro. Taylor is an old friend, and one of our queen-rearers. He has gone to my books and counted up the queens sent out to date, and they number a good many over 4,000 so far. JENNIE ATCHLEY.

Laying Several Eggs in a Cell.

MRS. ATCHLEY:—Please tell me what is the matter with a queen that lays three or four eggs in a cell? I had one that would walk around with two or three eggs hanging to her body, and then she would deposit them all in one cell; then, again, she would place herself in a cell as though she was laying, and when she pulled her body out of the cell there would not be any egg in the cell. Please tell me what was the matter with the queen.

Deland, Ills. A. W. RICHOLSON.

Friend R., the cause of the queen acting as you describe is a sign of weakness, and she was "no good" physically. She is weak, and has either been injured in the mails, or reared from an egg too old, which, most likely, causes the trouble to overtake such queens. Of course, such queens are worse than useless. JENNIE ATCHLEY.

◆

Increasing the Number of Colonies.

One of my neighbors kindly loaned me a copy of the BEE JOURNAL for Feb. 23, 1893, in which I read an article purporting to be one of a series instructing young bee-keepers in the art of apiculture, but I think one of her statements is very misleading, viz.: The method she advises to increase the number of colonies.

She advises leaving the old queen on its usual stand, and taking the "divide" to some other part of the apiary. Now, all my experience in bee-matters has led me to believe that it is just the opposite course that should be pursued, as, if the old queen is left on the old stand, all—at least the major portion—of the bees that are taken away will naturally return to the old home, whereby leaving the queenless "divide" almost in a beeless condition, quite unable to rear a queen that will amount to anything; but if the old queen is removed with some hatching brood, and a goodly number of bees, there is not much danger of too many bees returning to the old home, as their natural instinct is to remain with the queen-mother.

I must apologize for sending in this letter, as I am not a subscriber to the BEE JOURNAL, but I thought as a bee-man it would not come amiss.

H. KEMP.

Friend K., my plan of leaving the old queen on the old stand is the only plan that I now use, after making thousands of colonies in that manner. Taking the old queen away is a great damage to the owner unless the owner has a laying queen to give both colonies; then I would prefer leaving the old queen at home, as she is full of eggs, and when moved off her working-force so nearly all leave and work at the old stand, that she has not the room she requires, consequently she wastes her eggs.

Then you see in the part set off, the bees are all young, and have their life before them, and can afford to be without a queen longer than the old colony, as the bees at the old colony are nearly all, or a good portion at least, have their lives spent, or soon pass out, leaving their colony weak too soon, or before a queen can be reared, etc.

Then when the old queen is left at home she only spreads herself, and soon has a booming colony, and imitates natural swarming as nearly as any plan I ever saw.

Then give the part set away on the new stand a queen-cell ready to hatch, or, if permitted to rear a queen, she will begin to lay just about the time the last bees hatch, and they march right off—young bees and young queen—and soon make a powerful colony. Now, this is Southern bee-keeping, and works well for me, and I am not afraid to recommend it to my friends. But I will say to you, as I do to those I tell about my plan of introducing queens, this is only *my* way, and if you know a better one, by all means use it.

JENNIE ATCHLEY.

Alley's Queen-Rearing book, or "Thirty Years Among the Bees," gives the result of over a quarter-century's experience in rearing queen-bees, and describing the practical, every-day work. By Henry Alley. It contains an "Appendix," showing the improvements made in queen-rearing the last four years. Very latest work of the kind. Nearly 100 pages, with illustrations. Price, postpaid, 50 cents; or clubbed with BEE JOURNAL one year, for $1.30.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported	$11 25
S. H. Clark, Elwood, Iowa	40
J. W. Le Roy, Rio, Wis	1 00
Nothern Illinois Bee-Keepers' Association	6 25
Total	$18 90

CONVENTION DIRECTORY.

Time and place of meeting.

1893.

Sept. 6, 7.—Iowa State, at Des Moines, Iowa.
J. W. Bittenbender, Sec., Knoxville, Iowa.

Sept. 13, 14.—Nebraska State, at Lincoln, Neb.
L. D. Stilson, Sec., York, Neb.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

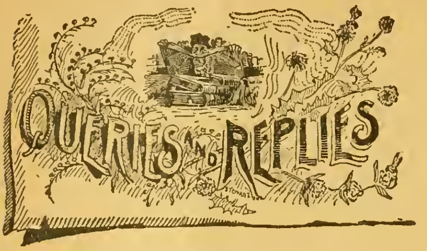
North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.......Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.



What About Self-Hiving Arrangements for Swarms?

Query 885.—1. What do you think of the practicability of self-hiving arrangements for swarms? 2. Are they worth the trouble and expense?—Subscriber.

1. I never tried them.—Mrs. J. N Heater.

1. I have never tried a self-hiver.—Eugene Secor.

1. I could tell better if I had tried them.—Mrs. L. Harrison.

2. No; there is too much to get out of order in those contrivances.—Dadant & Son.

1. I havn't tried them, but my faith is poor. 2. I don't believe they are.—S. I. Freeborn.

1 and 2. I will let those who have had experience in that direction answer this.—Jas. A. Stone.

1. I don't believe they have come to stay, or will ever be in common use. 2. I doubt it.—A. J. Cook.

1 and 2. Opinions differ. It is perhaps too early yet to know exactly what is the truth.—C. C. Miller.

1. I have never thought enough of them to try them. 2. I do not think they are.—Emerson T. Abbott.

1 and 2. I am not posted in this direction, but I have my doubts as to self-hivers ever becoming practical.—J. M. Hambaugh.

1 and 2. I do not think any yet brought out are practicable. See my recent articles in *Review* and *Gleanings*.—R. L. Taylor.

1. I have not tested them to know for myself. 2. I think that they might be made useful under some circumstances.—James A. Green.

1. I have never tried any, but I think, from the descriptions, that our inventors will get them to work. 2. Try them, and see.—P. H. Elwood.

1. I have not practiced it. 2. The most successful hiver that I know anything about is a good, reliable person on the ground at the right time.—H. D. Cutting.

1 and 2. I do not use them, and do not think them worth the trouble and cost until better perfected than at present.—G. M. Doolittle.

1. I have never seen a self-hiving arrangement, but my opinion of their practicability is not very high. 2. I do not think they are.—M. Mahin.

1. I consider it entirely practicable. 2. Another season is required to perfect the hiver, and when that is done it will be worth much more than the cost and trouble.—C. H. Dibbern.

1 and 2.—For me I don't want any self-hivers. We have six apiaries this year, and by seeing all of them once a week, or once in ten days, we can attend to the swarming.—E. France.

1. Theory and practice do not always jingle the same time. 2. Like many other fixtures that have come during the last 20 years, on the apiarian stage—they will pass gradually off.—J. P. H. Brown.

1. I do not use one. I believe in progress in anything, but I am now of the opinion that swarm-catchers will soon be a thing of the past, like the patent moth-catcher. I may be wrong. 2. Not to me.—Mrs. Jennie Atchley.

1. They are one of the new things. 2. I have been watching very closely for practical, and hence valuable, results, but those who do not desire to experiment had best wait awhile for a more thorough test.—J. H. Larrabee.

1 and 2. I believe—yes, I am firmly convinced—that the self-hiver has a great future before it—not for the specialist in his own apiary, but for those who have not enough bees to afford watching them.—R. F. Holtermann.

1 and 2. When I want a swarm, I want a swarm that can work with profitable results, and that means a strong swarm. No "self-hiver" will catch a full-sized swarm half of the time, and that is not practicability.—G. W. Demaree.

1 and 2. I don't believe in them; neither do I think we want any strains of "non-swarming bees." "Alley's queen and drone trap" will accomplish all that is claimed for the last patent, namely, "Langdon's," and is much simpler, and easier to use.—J. E. Pond.

1. I am convinced of the practicability of this new arrangement. But the apiarist who is continually with his bees does not need it. 2. To those who are at certain times obliged to be away, it is without doubt well worthy the expense. In such cases I would consider it a necessity.—Will M. Barnum

CONTRIBUTIONS

Experiments with Self-Hiving Arrangements for Swarms.

Written for the American Bee Journal

BY ADRIAN GETAZ.

Last spring I decided to make 30 self-hivers, and experiment with them. In principle they were similar to the Pratt hivers of 1892; that is, a box placed before the hive and connected with the hive-entrance by a queen-excluding zinc, with a cone permitting the queen to come into the hives, but not to go back. In fact, they were merely queen-traps transformed into hives. Another zinc in the front prevents the queen from going out of the hives.

The first experience was a mishap. My apiaries are both out of town, and other business requires most of my time. So one of the apiaries was a week and a half without attention. When I got there the people living on the place told me that one colony had swarmed every day for several days, and finally the swarm went off. Investigation showed five dead queens in the hives. The theory is, that the old queen was killed by the first virgin hatched, this in turn by the next, and so on. Probably the last one was reared from an old larva, and, as usual in such cases, under sized, and went through the zinc with the swarm.

Well, other swarms came, and were found in the hives, or at least the queens were, with more or less bees. The thing to do is to move the old hive to a new stand, and leave the supers, about one-third of the brood, and the swarm, in a new hive on the old stand. Thus used, the self-hiver (except perhaps some particularity of construction) is certainly a success.

As a non-swarmer it is a failure. The Dadants say that if a swarm is returned to the parent hive two days after swarming, the swarming-fever being over, the queen will be permitted to destroy the cells, and the colony will not swarm, at least not until new preparations for swarming take place, if the circumstances are favorable to it. Henry Alley says that after a queen has been three days in the trap, she will be permitted to destroy the cells. Acting upon these suggestions, I waited two or three days, and then returned the swarms from the hivers to the old hives. I soon discovered that the majority were swarming again repeatedly, even twice a day. Investigation disclosed the fact that only one queen had destroyed all the cells, the others had only destroyed a part. This was not entirely unexpected. It is obvious that the swarms returned to the hive and left in the hiver are not in the same condition as those coming out with their queens, hived in a new hive, and then returned.

As to Henry Alley's assertion, I have to say that so many conditions influence the swarming of bees, that he may have succeeded under some circumstances, while he might have failed entirely at some other times.

Well, I then proceeded to destroy the queen-cells myself. Only 3 colonies quit swarming; all the others persisted in swarming as long as they had either a queen or some brood from which to rear one. I persisted in returning swarms and cutting cells, and the bees persisted in swarming again and again. Finally, four or five queens "turned up missing," probably were killed. Then I acknowledged myself "licked," as Mr. Hasty would put it. I divided some colonies, and removed the queens from some others.

Here I have gained an important point. None of the colonies that had been *hopelessly queenless* for some time (from three or four days to nearly two weeks) offered to swarm again. It seems that when they find themselves without queens or brood (except capped brood) they give up all swarming notions and go to work. After new queens were given, they still kept on working regularly.

One or two points in regard to the construction of the swarmer: Excepting the one mentioned at the beginning of this article, no queen, so far as I know, has passed through the zinc. The cone ought to be placed so that the bees are not likely to cluster on the end of it, for when there is a cluster, they cannot go in and out easily through the cluster.

The most serious objection to the self-hiver, as I had it, was that it interferes considerably with the ventilation of the hive. My hives have ample entrances, the zinc between the hive and hiver was of large size (4x8 inches) with a space behind, and I thought that would be sufficient. The trouble is, that in hot days some of the workers, and whatever drones are in the hives, cluster on the zinc and cone, and thereby obstruct the holes, and not only interfere with the ventilation, but also with the going and coming of the honey-gatherers. The drones live in the hives several days, being fed there by the workers. This particularity may sometimes be turned to advantage. They can be easily destroyed, except those that may be wanted for fertilization of young queens. When the queens are out, the front zinc of the hiver can be removed, and the select drones permitted to come out. Closing the cone will effectually prevent the loss of a swarm while the front zinc is open.

About June 25th some of the colonies were so large, and the weather so hot, that I had to remove most of the zincs (between the hive and hivers) to insure better ventilation. I left the zincs in front of the hivers. Even thus reduced, the hiver was yet very useful, as no swarm could go off. As a general rule, any swarm going out and returning will try again very early the next day, if the weather is favorable. As a returning swarm hangs more or less outside the hiver for an hour or two after returning, by visiting the apiary between 10 a.m. and 12 o'clock, the apiarist can tell which hives have swarmed, and need attention.

After this experience, I doubt very much if the Langdon and Aikin devices to prevent swarming will work satisfactorily. I can only repeat what I said before, that it depends upon the circumstances; as to work always, I doubt it. The change of one hive to another where the bees are equally crowded could not abate the swarming fever. Mine swarmed from the hiver as well as they did from the old hive.

The revolving stand of B. Taylor was also a failure. The destruction of the queen-cells by the queens cannot do any more good than when done by the apiarist. It seems very difficult to prevent the swarming fever entirely. We can give plenty empty room, but not plenty empty comb as those who produce extracted honey do. Non-swarming colonies get to be very strong, and therefore more or less crowded.

Summing up, I see three points which conform to the teachings of our leading writers, viz.:

1st. The impossibility of preventing the swarming fever entirely, when producing comb honey. Of course the actual swarming could be prevented.

2nd. As long as the swarming-fever lasts, the colony is "no good," so far as gathering surplus is concerned.

3rd. The only ways to overcome the swarming fever are these:

a. Allowing swarming, or an equivalent, dividing. That is what Doolittle, Hutchinson, Heddon, etc., are doing. To obtain a surplus, they turn over to the swarm as much of the old force as possible, and whatever surplus is gathered already. This does not work very well here, for reasons that I will explain some other time. The old colony—well, I don't know, but by their reports, I suppose that most of the time the old colony is so weak that it dies the following winter or spring.

b. Removing the queen and cells, and not returning the queen (or another one) until the colony has been hopelessly queenless for some time. This is practiced by our most extensive and most successful comb honey producers, such as Manum, Aikin, Hetherington, Elwood, etc.

This will be my next year's experiment—as a help similar to the self-hiver, I want to try the following arrangement:

Have the hive so constructed that the entrance can lead either to the brood-nest or to the supers. Add to the hive, or rather to the brood-nest, a cone giving the necessary ventilation and permitting the bees to come out, but not to go back. At the opening of the honey-flow close the brood-nest, place a solid board between the brood-nest and the supers, so as to cut off entirely the communication between the two, and fix the entrance so as to send the whole force into the supers. Of course, the bees in the supers having neither queen nor brood will be hopelessly queenless and give up (?) any notion to swarm they may have. (Perhaps they will, and perhaps they won't.) The queen in the brood-nest with only young bees will destroy whatever queen-cells may be started. Three or four days later the board between the supers and brood-nest can be removed, and the usual brood-nest entrance opened again. The operation can be repeated again during the honey-flow, whenever swarming may occur.

I'll let you know in a year from now whether the above scheme will work or not. At any rate, I think if it fails as a non-swarmer, it will be splendid to start work in the sections, and could also be used in lieu of contracting the brood-nest, if this is desired at the end of the season.

Knoxville, Tenn., July 10, 1893.

Season for Honey, and Other Bee-Notes.

Written for the American Bee Journal

BY C. A. BUNCH.

The season for basswood and clover has been better than for years, but as a great many bees died during the fore-part of last March, the average bee-keeper was not in a position to reap the bountiful flow. At this writing we are having a honey-dearth, which came on earlier than usual, and bids fair to put a stop to a fall honey harvest, which is generally much better than the basswood and clover harvest; and should a heavy rain be delayed much longer, it means death to many bees that belong to bee-keepers (not bee-masters) who never feed their bees, but let them feed themselves or starve.

A fair sample of these bee-men was at my bee-yard awhile ago for pointers—not bee-stings—but points on bee-keeping, I supposed. To interest him I began to open the hive to show him my breeding queen and her bees, but, says he, "Don't open the hive, it might bother them." I assured him it would do no harm, and showed him the inside workings of several colonies; one, in particular, that had a row of queen-cells built along the under side of a small square stick instead of a piece of brood-comb, as given in Alley's "Handy-Book," and of course I had to tell him how it was done, and about that time he remembered his work at home. After presenting him with a few copies of the BEE JOURNAL, he went on his way rejoicing.

INTRODUCING QUEENS.

After trying the Simmins' method of introducing queens, I find that I am able to successfully introduce about 8 out of 10 queens, and I followed the method of introducing to the letter. To successfully introduce a queen from a distance, or one out of the hive from one to 16 days, I want the colony to be re-queened to be queenless three days, then introduce on the candy plan, and leave the colony undisturbed three days. This last plan of introducing is old and well known, but good enough for me. I usually test a colony as to their behavior toward a queen, by laying the cage on the frames of the colony to be introduced, a minute or two, and their actions will serve as a pointer.

Nye, Ind., Aug. 7, 1893.

Bean Honey—A New California Production.

Written for the American Bee Journal

BY W. A. PRYAL.

California is about to come to the front with a sauce for the Bostonians to serve on their Sunday morning brown bread and beans. The State named is to be congratulated upon discovering something that will appeal not only to the cultured bean-eater's intellect, but to his stomach as well. Right here it might be remarked that the Golden State has been getting pretty close to the vital parts of the dwellers of the Hub. It was only a few years ago that it was ascertained that a couple of the lower counties of California could produce beans of unrivaled quality, and in enormous quantities. This struck the average Bostonian in the spot where he did the most thinking, that is in his pocket—we were going to say stomach, for some persons have been so unkind as to intimate that those people have their seat of wisdom in that part of their body.

When California beans began to flow into the pantries of the Bostonian housekeeper, she thanked the Californian grower for sending her such delicious beans; the only thing she regreted was that they were not sent to her already baked. Perhaps some day those wide-awake bean-producers of the Ventura hillsides and valleys will devise means to send the product of their ranches ready cooked, that they may be served upon the table at a moment's notice. In fact, we have heard that some of the fruit canneries in California have been putting up Boston brown bread and beans in cans, the contents being already cooked.

This is a step in the right direction; but there is now a prospect that the canneries, and for that matter the Boston baker, too, will no longer have to resort to vile molasses as a sweetening for the said beans, or the favorite bread that must necessarily go with the beans. This substitute is said to be one fit for the gods, and, consequently, fit for the Bostonian, as he believes that he stands close to, if not above, the ancient deities of whom he is perfectly familiar through long reading of the ancient classics.

The reader will want to know what this sauce is that will so surely find favor with the advocates of beans and brains. It is this: Down in Ventura county, California, where the bean-vine grows, there the little busy bee gathers nectar from each opening bean-blossom, which it doth store in its waxen cell for the toothsome beans and the delicious brown bread of the Boston epicures. The California bean-flowers need no longer waste their sweetness upon the desert air, for the coy and winsome maiden with glasses perched upon her nose, will gladly welcome each drop of honey they give forth to the tiny honey-gatherers, that it may find a resting place in the bread and bean basket of the brain workers of the intellectual hub of the universe.

To Boston's indisputable array of "B's" must be added another. The list will now stand—Boston Brown Bread, Baked Beans, and Bees' Beautiful Honey. Perhaps it might have been well to have included "Brains" in the above list.

From a late issue of a Ventura paper, we learn that the Ventura bee-keeper is going to follow the bean-flowers up pretty closely with his bees. When the latter have gathered in the entire crop of sage honey, and there is nothing else for them to work upon in the location of the apiary, the apiarist will put his hives upon a wagon and transport them to the vicinity of a bean-ranch. There his bees will "turn themselves loose" among the bean-blossoms. Honey, bright and clear, will be the result. The apiarist will be pleased, and the dweller of the "Hub" will be delighted, when given the right sort of nectar to flavor his favorite dish.

Our attention was first called to bean honey at the World's Fair, where we saw some very nice samples in the California building; in fact, at that time, it was the only honey shown in that building that came from this State. This honey was both in the liquid form and in the comb. At first we were a little inclined to be skeptical about the honey being gathered from the source it was credited with coming from. Since then we have learned that bees do gather a fair quantity of this honey, and when all the conditions are favorable, a very large yield may be obtained.

Mr. M. H. Mendleson is going to try the experiment of moving several hundred colonies of his bees from the mountains to the valleys where the beans are raised. He is confident that he will get a good yield of bean honey. All the honey of this kind that he has seen is very fine, and as clear and white as could be desired.

Now, who will get up a corner in "bean" honey, and undertake to supply the Boston market? Boston will, no doubt, take all the honey that California can produce, and, like Oliver Twist, cry for more.

North Temescal, Calif.

Is Chilled Brood the Cause of Foul Brood Among Bees?

Written for the American Bee Journal

BY A. D. KELLER.

I am one of those that did not at first think of answering Mr. McEvoy's article on page 594 of the BEE JOURNAL for May. I presume the question should be thoroughly discussed, as a large number of bee-keepers believe as Mr. McEvoy.

I have kept bees ever since 1870, and have had as many as 700 colonies at one time; I also have been foul brood inspector for several years, and I will say that I have not seen a case of foul brood which originated from chilled or dead brood.

I have experimented considerable with dead brood, by letting it get rotten in warm weather, and then I gave the combs to the bees to be cleaned. I have never seen any foul brood (*bacillus alvei*) derived therefrom, but I have seen something that had a similarity to it.

By giving combs containing dead brood to the bees, they do not always absolutely cleanse them of all germs (not *bacillus alvei*), consequently a few of the larvæ would become diseased, and die, but the first crop of brood only.

It is impossible for Mr. McEvoy's remedy to cure *bacillus alvei*, as the spores are sure to be in every place wherever a bee can place its foot inside of the hive, therefore his remedy is not specific.

I always used Prof. Frank R. Cheshire's remedy, or some of its modifications, which I know is sure and infallible. Mr. Cheshire's remedy may be found on page 644, of the AMERICAN BEE JOURNAL for 1884.

Firth, Nebr.

[As Prof. Cheshire's method of cure is too long to republish, we would say that we have it in pamphlet form, and can mail a copy to any one interested, for 10 cents.—ED.]

Langdon Non-Swarming Attachment at Michigan's Apiary.

As Reported in the "Bee-Keepers' Review"

BY R. L. TAYLOR, APIARIST.

As stated in my former article, five of these attachments were adjusted to hives on the 22nd day of June last, and that the conditions may be understood as fully as possible, I must explain that at that date swarming to a moderate extent had been going on in the apiary for a week or ten days; the hives employed also varied in capacity, three sizes being used, viz.: the single story, new Heddon, double story new Heddon, and the eight-frame dovetailed. The hives, of course, are used in pairs, and for convenience each pair is designated by a number. Nos. 1 and 5 were each composed of one double and one single Heddon; No. 2 of two single Heddon; No. 3 of two double Heddon, and No. 4 of two dovetailed hives.

I wish to explain here also once for all that in this line of experiments wherever a swarm issued it was never returned to the hive from which it came but always to the other member of the pair.

The details of the swarming are as follows: No. 1 cast a swarm June 24th, 28th, 30th and July 4th and 10th—five times; No. 2 cast a swarm June 23rd, 24th, 25th and 26th and July 1st, 4th and 7th—seven times; No. 3 cast a swarm but once—on June 30th; No. 4 cast a swarm June 27th and July 2nd—twice; No. 5 cast a swarm June 24th, 26th and 29th and July 4th and 10th—five times. In other words, No. 1, consisting of one single and one double-story Heddon hive, swarmed five times—three times from the single story and twice from the double story; No. 2, consisting of two single story Heddon hives, swarmed seven times; No. 3, consisting of two two-story Heddon hives, swarmed once only; No. 4, consisting of two dovetailed hives, swarmed twice; and No. 5, consisting of one single story and one double story Heddon, swarmed five times—three times from the single and twice from the double story, that is, it appears, the larger the hive the longer are the bees able to resist the inclination to swarm.

Michigan Experiment Apiary, at Lapeer, Conducted by Mr. Taylor.

It will be observed that there was little opportunity to operate the attachment for the purpose of throwing the bees from one hive to the other (except as swarms issued) and it was only practiced in the cases of Nos. 3 and 4—twice in No. 3 and once in No. 4. In each of these this was done on June 26th, the fourth day after the attachment was put in place. But it will be noticed that the very next day, June 27th, No. 4 cast a swarm, and No. 3 cast a swarm on the 30th, indicating that when other conditions are favorable very little if any preparation at all in the way of queen-cells is required before the bees feel at liberty to swarm.

One hive of No. 2 lost its queen, which was replaced by a fine young queen which had been laying but a few days, yet this young queen came out with a swarm within four days, and within a week was lost, apparently destroyed by the bees.

As might have been expected under such circumstances the bees of these colonies did not do very good work, but those that did the most swarming did fully as well as the others. As I estimate it, these bees yielded about 65 to 75 per cent. of the surplus they would have yielded had they been managed in the ordinary way. What especially surprised me was the remarkable slowness shown by these strong colonies in capping their surplus honey.

It was always very evident that the desire to swarm was thoroughly eradicated from the colony from which the bees had been thrown—this was frequently very soon shown by the casting out of immature drones. I could not see that worker-brood suffered materially.

Why was it that the inclination to swarm was not also removed for a time from the working force of the two colonies thrown together into a hive in which there was no beginning of preparations for swarming?

I have hereinbefore remarked that it appears that the larger the hive the longer the bees are able to resist the inclination to swarm. But the size of a hive is a relative matter and the largest one becomes small if too many colonies are united and put into it.

The theory of the Langdon attachment is that the prevention of the *completion* of the usual course of preparation for swarming common in normal cases will prevent swarming in all cases. The mere statement reveals the fault in the reasoning. The attachment answers completely to the theory, but the theory is wrong. It is not an infrequent occurrence that swarms issue without leaving a sign that there had been a thought of preparation, and this is only on the line between the normal and the abnormal. If several swarms are out at once and unite and are hived after an unequal division, the colony having an unduly large proportion of the bees will generally persist in the desire to swarm. That condition is abnormal and creates dissatisfaction. To unite the working force of two colonies when the swarming fever is in the air is highly abnormal, and if this is done, this abnormal condition must be provided against if swarming is to be prevented. At least the result of the experiments thus far seems to point that way.

If a course of operations creates abnormal conditions it should be required to make efficient provision to cope with those conditions.

Lapeer, Mich., July 27, 1893.

Honey from Button-Willow, Transferring, Etc.

Written for the American Bee Journal

BY W. A. FEE.

I have read the reports of the honey-flow in the BEE JOURNAL each week. As for this part of the country, it has been very poor, so far; very little surplus, mostly from white clover. Bees are now working on button-willow. I have 35 colonies which are working across the Ohio river, the willow being about two miles from my apiary. The honey they are getting is very clear—I think it is equal to white clover.

SUGAR SYRUP FOR WINTERING.

I wintered my bees on granulated sugar syrup last winter, and did not lose a colony. I gave them 20 pounds each, and made a syrup of five parts sugar and two parts water mixed in a tub and boiled with a steam jet for a boiler, thus melting a large quantity in a few minutes, and no danger of burnt syrup.

TRANSFERRING BEES.

I have done a good deal of transferring from box-hives in the last year, and have found a way that beats "drumming," every time.

To get the bees out of the box, I use a forcing-box made with wire-screen at the top, and open at the bottom except some strips across for the bees to crawl up on. I next take the box-hive and make an opening in the top for the bees to come out of, fasten the forcing-box on, screen up, stop up cracks around the box, and then I am ready to oust the bees.

I set the hive up on something, letting the edge project a little; then I take a good, strong smoker and give a few light puffs of smoke under the box to start the bees up. As soon as I see them start out into the screened box, I just roll in the smoke, and in a few minutes every bee will be in the screened box, as the smoke passes through the screen and does not bother them, as the case would be in a tight box.

The BEE JOURNAL is a great help to me, as each week it has something new and interesting to me.

Rockport, Ind., July 28, 1893.

LETTER BOX
REPORTS PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

A Very Good Season.

The season has been very good so far. I have taken 900 pounds of honey from 11 colonies. Honey sells readily at 15 and 20 cents per pound. The most of my bees were run for queen-rearing.

MRS. A. A. SIMPSON.
Swarts, Pa., Aug. 12, 1893.

Looks Like White Sage.

We have a plant in this country that is called "wild sage." I send a sample of it, and would like to know through the AMERICAN BEE JOURNAL if it is the same as the white sage in California. W. H. MOSES.
Spanish Camp, Tex.

[It looks like white sage, but the sample sent was too little to identify it.—ED.]

Bees Did Well in June.

Bees did very well in this locality in June, and part of July, then the clover dried and turned brown, and left the second set of sections half finished. There will be no flow from heart's-ease this fall, as there is none in the corn or stubbles, or in the creek bottoms, where it seldom fails; and if bees gather enough to stimulate breeding for the coming season, it will be all I can expect. GEO. POINDEXTER.
Kenney, Ills., Aug. 12, 1893.

About 200 Lbs. from Two Colonies.

I have 7 strong colonies of Italian bees in Langstroth hives. I did not keep an account, but I took about 100 pounds of honey from each of the two strongest, but they did not cast a swarm. It is very dry, and they have done nothing for some time.

It is a shame to treat bees as two of my neighbors do. They each have 8 or 9 colonies, but have not given them any attention for three years, consequently they have no honey, but cross bees.

MARGARET S. SWAIN.
Pendleton, Ind., July 30, 1893.

Honey a Short Crop.

Honey will be a short crop here. The forepart of the season promised well, but the weather cut us short then, and now while buckwheat is in bloom it is so dry that it does not yield honey yet, and I fear I will have the smallest average per colony that I have ever had. N. D. WEST.
Middleburgh, N. Y., Aug. 14, 1893.

Bees Did Just Tolerably Well.

I have about 30 colonies of bees, and they have done just tolerably well. The honey is very fine. I lost about 10 colonies last winter out of 25. A year ago I lost about 40 colonies, and saved 4. I am beginning to gain a little now, and hope that I will be more successful in the future.

W. L. MITCHELL.
Erie, Ills., Aug. 2, 1893.

Bees Doing Very Well.

My bees are doing very well this season. I had 29 colonies, spring count, have increased them to 47, and secured 1,000 pounds of nice white honey, mostly in the comb. I like the hybrid bees, and think they are tougher, gather more honey, and can't be robbed so easily. They are as cross as bears, but I can get along with that if I have one of the Bingham smokers.

CHAS. B. ALLEN.
Central Square, N. Y., Aug. 4, 1893.

Young Bees Preferred for Winter.

I have seen it in print somewhere, that old bees winter as well, if not better, than young bees. I do not now remember who the writer was, but I do know that his idea on this subject is not in accord with my experience.

In my experience I have invariably found that colonies that reared brood latest, everything else being equal, wintered best. This is in accord with natural laws. Bees, as well as other animals or insects, that are worn out with age and toil, cannot withstand a long, dreary winter as well as younger ones that are in the prime and vigor of life.

In the management of my bees I make it a point to see that all queens are laying at the time for the brood to make young, thrifty bees for the beginning of winter. If I have a queen that from any cause has ceased laying, or is not laying sufficiently, I give her colony a few stimulating feeds, and get her to work. This has been my practice ever since I have been keeping bees on the modern plan, and I challenge any man to show a better record in wintering than I can show.

Sneedville, Tenn. H. F. Coleman.

New Theory About the Queen's Will.

As the compression theory is pretty well exploded, I will advance a new one made from the remnants of various theories. The drone organs are so constructed that they cannot be pulled away from the queen, and are detached from the drone and are retained by the queen, thus becoming a part of her body, and consequently she is both male and female, and can replenish the colony in early spring without the expense of wintering drones. The same theory applies to bumble-bees, wasps, and various other tribes of the bee-family. The bumble-bee males are not reared until late in the season, just in time to transport the male organs in the female before they hibernate for the winter.

I have never been able to see any difference in the brood-cells, hence the queen must have the power to lay the kind of eggs wanted. As to the drones being affected by fertilization, I can't see how that is to be determined until we have complete control of the fertilization of the queen. I would like to hear some of the "big guns" go off on this theory. Rufus Williams.

Crescent, O. T.

Two Queens in One Cell.

I see on page 140, a report of D. L. McKean in regard to finding a queen and worker in the same cell. About two weeks ago a friend of mine had a swarm come off, and he sent for me to go and cut out the queen-cells, and put the bees back into the old hive. I cut about seven or eight, besides finding five queens with the swarm. I saved three of the queens, and threw the cells on the ground.

Another man was present (a shoemaker of our town), and he picked up some of the cells and took them into the shop. A customer, coming in soon, his attention was called to the cells, and not having seen anything of the kind before, the shoemaker cut some of them open to show them. In one of the cells they found *two* well developed queens—one slightly smaller than the other, but both dead, but did not appear to have been dead very long. He says there was no partition between them. Is there a similar case on record? If not, let the learned ones explain. I told them I thought I could see a "sell," but they claim "a true bill." Who says this is not a progressive age? T. C. Kelley.

Slippery Rock, Pa.

A Beginner's Experience with Bees.

I bought 3 colonies last winter, and had them delivered to me in the spring. One colony is pure Italians, one hybrids, and one blacks. I made a division from my blacks, but not having any experience with bees, I made a failure instead of a success. I could not get a queen-cell started. Either of my colonies have not swarmed thus far.

I bought a swarm about a month ago, and hived them myself; they were about 10 feet from the ground in the top of an orange-tree. With a bucket of water and a turkey wing, I went up the tree and wet the cluster, then cut the limb off and carried them down, and put them into a box which I have for the purpose. This was my first attempt. I suppose I did very well. I did not get a sting.

My bees have not done very well in storing honey, but I hope they will do better next year.

I am very much pleased with the Bee Journal. It gives so much good advice, that I don't see how any bee-man can get along without it. Chas. S. Curry.

Venice, Fla., Aug. 9, 1893.

Convention Notices.

IOWA.—The eleventh annual convention of the Iowa State Bee-Keepers' Association will be held in their tent at Des Moines, Iowa, on Sept. 6th and 7th. All friends and bee-keepers are cordially invited. For programme write to the Secretary.

J. W. Bittenbender, Sec.

Knoxville, Iowa.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land, Frank Benton, Sec.

Washington, D. C.

NEBRASKA.—The yearly meeting of the Nebraska State Bee-Keepers' Association will be held at Lincoln, Neb., on Wednesday and Thursday evenings, Sept. 13th and 14th, 1893. This will be held in connection with our State Fair, and we would be pleased to have Eastern visitors meet with us. One-way excursion rates will be given on all railroads from Chicago to Lincoln, at that time. Let every bee-keeper call and get acquinted with the Nebraska honey-producers, whose headquarters are always open.

York, Nebr. L. D. Stilson, Sec.

Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the Bee Journal for one year, for $1.15.

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, at its last meeting, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

The following Quotations are for Saturday, Aug. 19, 1893:

CHICAGO, ILL.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, white, 8c.; amber, 7c Beeswax doesn't move at any price. J. A. L.

CHICAGO, ILL.—The receipts of honey are quite liberal; the very best grades are bringing 15@16c. The demand just now is hardly equal to the supply, and we are receiving many inquiries concerning the market. We are of the opinion that it will not be any higher but may go lower, as money is very scarce and people seem to economize in the way of honey purchases. The darker grades are not meeting with any demand. Nearly all of the new honey is of very fine quality. Extracted is bringing from 5@7c., according to color, flavor and style of package. Beeswax is very dull at about 20@22c.
R. A. B. & Co.

CHICAGO, ILL.—Honey this year is being placed on the market earlier than last season, but the demand is restricted and will be light until small fruits are out of the market, and with the prospect of a large crop, buyers will be particular as to quality, and the best will find ready sale upon arrival. No. 1 comb, 16c Extracted, as to quality, 5@7c.
Beeswax—22@24c. S. T. F. & Co.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

CINCINNATI, O.—Prices for comb honey are nominal, with small lots of new on the market. The best sells at 14@16c. Extracted honey brings 5@8c. Demand is slow from manufacturers; arrivals fair.
Beeswax—Demand fair, at 20@23c for good to choice yellow. Supply good. C. F. M. & S.

BOSTON, MASS.—Fancy white, 16@18c.; No. 1 white, 15@16c. Extracted, white, 7@8c.; amber, 6½@7c. Beeswax, 25@28c. B. & R.

ALBANY, N. Y.—Enquiry for honey improving and have made some good sales. Fancy white 16@17c.; No. 1 white 14@15c.; mixed, 13@14c.; No. 2 mixed, 12@13c.; fancy dark, 12@13c.; No. 1 dark, 11@12c. Extracted, white, 7½@8c.; amber, 7@7½c.; dark, 6½@7c. Beeswax slow at 26@28c. H. R. W.

NEW YORK, N. Y.—Our market remains very quiet. Extracted continues to arrive freely; the market is well supplied, and the demand is light. We quote: Southern, common, 60c. per gallon; fair to choice, 65@75c. per gallon; California, 6@6½c. per lb. No new comb honey on the market as yet. Beeswax, gradually declining; 25c. for good yellow at present. H. B. & S.

KANSAS CITY, MO.—Stock very light of comb honey. No extracted on the market. Demand is good. We quote; Fancy white, 17@18c.; No. 1 white, 15@16c.; fancy amber, 14@15c.; No. 1 amber, 14c.; fancy dark, 13@14c.; No. 1 dark, 13c. Extracted, white, 7@7½c.; amber, 6½@7c.; dark, 5½c. H. & B.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white comb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE — High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

Eighth Edition Just Published

New and Revised Edition

—OF—

BEES AND HONEY,

OR THE

Management of the Apiary

FOR PLEASURE AND PROFIT

—BY—

THOMAS G. NEWMAN,

This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages and **245** illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold lettered. Price, **$1.00**-postpaid.

LIBERAL DISCOUNT to dealers, by the dozen or hundred.

Free Premium Edition to New Sub's.

This new "Premium" edition of "BEES AND HONEY" is bound in tinted-paper cover, and **to Every New Subscriber** who sends us **$1.00** for one year's Subscription to the "American Bee Journal," we will send a copy free.

To the person sending us **two new subscribers** at $1.00 each, we will mail one copy of this Edition as a Premium, and **also** send a copy to **each** of the two new subscribers.

Please, remember that the full subscription price of $1.00 for the "Bee Journal" must be sent to us in order to get this book as a premium. Also, that any one sending in new names on the above conditions, cannot **also** take advantage of any other Premium offer that we make. In other words, we can't afford to give **two** premiums for every new name, except as offered above

To **renewal** subscribers we will send a copy of this paper-bound Edition with the BEE JOURNAL for a year—**both for only $1.25.**

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Review	2 00	1 75
Canadian Bee Journal	2 00	1 75
The Apiculturist	1 75	1 65
Progressive Bee-Keeper	1 50	1 30
American Bee-Keeper	1 50	1 40
Nebraska Bee-Keeper	1 50	1 35
The 8 above-named papers	6 25	5 25
and Langstroth Revised (Dadant)	2 40	2 25
Cook's Manual of the Apiary	2 00	1 75
Doolittle on Queen-Rearing	2 00	1 65
Bees and Honey (Newman)	2 00	1 65
Advanced Bee-Culture	1 50	1 35
Dzierzon's Bee-Book (cloth)	2 25	2 00
Root's A B C of Bee-Culture	2 25	2 10
A Year Among the Bees	1 50	1 35
Convention Hand-Book	1 25	1 15
Illustrated Home Journal	1 50	1 35

Your Neighbor Bee-Keeper—have you asked *him* or *her* to subscribe for the BEE JOURNAL? Only $1.00 will pay for it for a whole year. And, besides, *you* can have Newman's book on "Bees and Honey" as a premium, for sending us two new subscribers. Don't neglect your neighbor! See page 250.

Advertisements.

WANTED To sell one six-horse Boiler, 26x60, 37 2-in. flues; one five-horse Engine in good working order; $120.00, f.o.b.
8A **V. W. KEENEY, Shirland, Ills.**

Mention the American Bee Journal.

Tested Italian Queens

$1.00 Each. Untested Queens, 65 cents.

Safe arrival guaranteed. Address,

C. A. BUNCH, NYE, IND.

Mention the American Bee Journal.

Prevent Winter Losses

BY introducing Young Laying Queens late in season. Try a **Golden Beauty** at 75 cts.; 2 for $1.25. Tested, $1.00; 2 for $1.75. Sent promptly. For prices on large lots, write. Sample Bees Free,

C. B. BANKSTON,
8A1t CHRISMAN, Burlison Co., TEX.

Mention the American Bee Journal.

ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., AUG. 31, 1893. NO. 9.

EDITORIAL BUZZINGS

Bro. C. P. Dadant, of the comb-foundation firm of Chas. Dadant & Son, has been quite sick for several weeks. We are glad to know that he is about recovered, and hope he will soon be all right again.

The Louisiana Hotel is the place where the North American bee-convention will be held on Oct. 11th, 12th and 13th. See the advertisement of the hotel on page 261 of this issue of the BEE JOURNAL. Any of our readers who may be coming to the World's Fair before the convention is held, would do well to "put up" at the Louisiana Hotel. Full information about it is given on page 261.

Struck by Lightning.—Bro. J. L. Hubbard, of Walpole, N. H., we are very sorry to learn, has suffered a severe loss. His buildings were struck by lightning and all burned on the night of Aug. 19th, including crops, which were harvested, some stock, and part of his household goods. He saved his bees and honey, however, and was fortunate and wise enough to carry a fire insurance. Bro. Hubbard is one of the oldest subscribers to the BEE JOURNAL, having taken it beginning with the very first number in 1861.

World's Fair Honey is a rarity, but Mr. Hershiser, who has charge of the New York State exhibit, was kind enough to present a beautiful one-pound section of honey to the editor of the BEE JOURNAL. It was gathered by one of Bro. Doolittle's colonies of bees on exhibition at the Fair, and we want to say right now that Bro. D.'s bees gather excellent honey here in Illinois; just what kind the same bees would gather in New York we are not able to tell, though we feel certain it would be good.

From the taste, it would be very difficult to tell from just what flowers the World's Fair honey was gathered, as it must have come from a great variety that are scattered all over the Fair grounds. The comb is very white, the section well filled and evenly capped, and the very clear, light-colored honey is thick, and—simply delicious!

Bee-Keepers' Picnic.—The Cortland Union Bee-Keepers' Association will hold their annual picnic at the Floral Trout Park, Cortland, N. Y., on Wednesday, Sept. 6, 1893. Everybody desiring a good time is invited. Mr. C. W. Wilkins, of Homer, N. Y., is Secretary of the association, whom you can address for further information about the picnic.

See Our New Premium List on page 285, and then decide to get some of the premiums offered for securing new subscribers for the BEE JOURNAL. We want every one of our present subscribers to help us increase the number of our regular readers. Will you see what you can do toward it?

The Honey Exhibits at the Fair are now nearly all in place. We were there on Saturday, Aug. 19th, and Bro. Cutting expected to have the Michigan exhibit completed in another week.

Bros. Stone and Hambaugh were putting the Illinois honey into their four large cases, and Mr. Hill had the Indiana honey all in, including a fine display of bottled "Honey-Dew," a Russian temperance drink made from honey. A fuller description of this healthful honey-drink will be given next week.

Mr. Pringle, who has charge of the Ontario exhibit, had gone home to arrange for bringing on more honey soon for their already nice and large exhibit.

We noticed quite an increase in the number of visitors in the apiarian department, over what it was a month or so ago. About 150,000 people a day are now on the Fair grounds, and likely this large number will increase wonderfully from now on. It is a great Fair, and everybody who can possibly do so should see it.

◆

Mr. Charles White, of Nebraska, familiarly known as "Buckskin Charlie," has been at the World's Fair the past two or three weeks. He not only has several small nuclei of large and beautiful bees on exhibition, but also a combined section-folder and foundation-fastener which he invented. It is perhaps the most complete, rapid and accurate machine yet brought out for the purpose of securely folding the section and fastening in it the foundation at the same time, and all with two motions of the foot. Full sheets, or simply starters of foundation, can be put into the sections with this machine. Mr. White is a good-hearted, generous bee-man, and takes much pleasure in showing his bees and machine to all visitors.

◆

North American Convention.—We have received the following announcement from Secretary Benton:

COLUMBIAN MEETING OF THE BEE-KEEPERS OF NORTH AMERICA.

The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills.

PLACE OF MEETING.

A hall for the use of the Convention has been secured in the "Louisiana Hotel," at the corner of 71st street and Avenue B, only a few minutes walk from the south entrance to the World's Columbian Exposition. This hall is large, well-lighted, and in a quiet place.

HOTEL ACCOMMODATIONS.

The "Louisiana Hotel" itself will furnish comfortable accommodations to members at very moderate prices. For a small room two persons pay daily 75 cents each. Larger rooms occupied by two, at $1.00 per person. Four persons occupying a room having two beds will pay 50 cents each. Meals can be obtained in the hotel at reasonable rates, or at numerous restaurants in the vicinity. It is best to engage rooms by letter beforehand.

The proprietors of the "Louisiana Hotel" give us the use of the hall free, expecting that all the members, so far as possible, will take rooms with them, and as the prices are moderate, and rooms are neat and convenient, it is but just for all who can well arrange to stop there to do so. For this purpose, address, Manager "Louisiana Hotel," corner 71st Street and Avenue B, Chicago, Ills., stating what priced room is wanted.

RAILWAY TICKETS AND BAGGAGE.

Most of the railways ticket to the Exposition Depot, near which the "Louisiana Hotel" is located, and baggage should be checked to that station, thus avoiding extra charges, as it is about seven miles from the city stations to the World's Fair Grounds. Information as to rates of travel, the time tickets are good, etc., can be obtained of all local ticket agents. From many points—especially from cities having numerous competing lines—excursions will be starting which will permit those who can take advantage of them to go and return at the usual rate for one fare, if not less than that.

PROGRAMME AND ATTENDANCE.

The programme, of which further notice will be given, consists of interesting essays by well known specialists, and discussions of topics which will interest honey-producers, queen-breeders, manufacturers of apiarian supplies, publishers and editors of bee-literature, and dealers in honey and wax.

Viewing the various foreign and home exhibits in apiculture at the World's Fair, will form an attractive and instructive feature of the meeting, and the number of apiarists widely known here and abroad, who will be present and take part in the proceedings, is of itself a guaranty that this will be a highly interesting and enthusiastic meeting.

Counting, therefore, upon a large attendance, the Executive Committee of the society has made arrangements accordingly. Let every State in the Union send the strongest possible delegation, and let every branch of our industry be represented at this great Columbian gathering. No other occasion is likely to occur in our generation when so much of interest can be seen and heard at the time of one of these meetings, and it is earnestly hoped that a much larger number of the bee-keepers of North America than has ever met at any previous convention will be able to avail themselves of this grand opportunity.

NOTICE OF ATTENDANCE OR OF PRESENTATION OF ESSAYS.

The Secretary is desirous of obtaining, as early as possible, the names of all who contemplate being present. Kindly notify him by card or letter. Also any who may wish to present essays, the titles of which have not yet been handed in, are requested to send to the Secretary at as early a date as possible the exact title, and a very brief abstract of the article, which will enable him to assign the topic its proper place in the programme. FRANK BENTON,
Sec. North American B.-K.'s Association.
U. S. Dept. of Agricuture,
Washington, D. C.

It is to be hoped that all bee-keepers will arrange to attend this great convention. If all who fully intend to be there will let us know in advance, we will publish a list of their names. It will be interesting to know beforehand whom we may expect to see.

Mrs. Atchley, on page 270 of this number, gives some more information about Texas. As many of the questions sent her are so similar, she hopes that publishing the answers in the BEE JOURNAL will serve to reply to a great many people at the same time, thus saving her an endless amount of writing. Her "huckleberry story," this week, is a good one—and just as true as it is good. Read it for yourself.

The Spider and the Bee.

(A new version of "The Spider and the Fly," with different results,)

Written for the American Bee Journal

BY P. D. W.

"Will you come into my parlor?" said the spider to the bee,
"It is the prettiest little parlor, that ever you did see.
The way into my parlor, is up around the combs,
And while you are at liberty, I'll show you through my rooms.

"I'll show you through my galleries, and through the dining-hall,
And, in honor of your visit, I will give a fancy ball;
Indeed, I'll do my utmost, your pleasure to enhance,
And hope you will enjoy yourself, and join us in a dance.

"You'll see some subtle works of art, fine tapestry and lace,
And lots of other gaudy things that decorate my place.
In rare and costly pictures, my palace does abound—
Designed by Nature, not by art—profusely hanging round."

* * * * *

"You homely interloper! How came you up in there?
You must have lots of impudence, and plenty more to spare!
Will you explain from whence you came, and when did you arrive?
And how dare you take possession of the corner of my hive?

"You would like to see me dance to music of my own,
While strangling in your wily net, my chance of life all gone?
Your dining-halls, or bone-yard, I do not wish to see.
You ugly looking cannibal, you would eat me there with glee!

"What you style your work of art, your fine and gauzy lace,
Is naught but dusty cobweb, peculiar to your race.
When you talk of pictures, you give yourself away—
They are the heads of bees and flies, upon which you do prey!"

The spider saw "the cat was out," and got into a rage,
And thought to pull the busy bee by force into his cage;
And tangle her up in web and rope, for which he had a knack,
But the bee, as quick as thought, alighted on his back.

"There is many a slip twixt cup and lip!" our heroine now cried,
And thrust her stinger hot and sharp into the spider's side.
The spider bolted for the door, and tumbled round and round,
And in a minute more or two lay dead upon the ground.

This venomous impostor might lure some silly flies,
With sophistry, deception, stratagems and lies;
But the witty little bee was now aware, no doubt,
Should she by fraud be taken in, she'd ne'er be taken out!

Richland Centre, Wis.

A Sweet Church.—Mr. Geo. Poindexter, of Kenney, Ills., has sent us a newspaper clipping dated Aug. 9th, that tells of a great amount of honey that was taken from a church. It says that for a long time the congregation of the Zion church, near Five Points (six miles north of Oakland, Ills.), have been bothered with honey-bees. The bees became such a pest that it was determined to get rid of them, so a dozen or more farmers assembled at the church and tore off the siding on one side, discovering an immense deposit of honey. Over seven tubs full of sweetness were taken out, and the bees successfully hived. What a sweet hive that was! And here we have some "church-going bees." Pretty good example they have been setting, too. They carried their "contributions" to the church, and when the "collection" was taken it was found that the bees had "contributed" seven tubs full of *gold*-en honey!

CONVENTION DIRECTORY.

Time and place of meeting.

1893.

Sept. 6, 7.—Iowa State, at Des Moines, Iowa.
J. W. Bittenbender, Sec., Knoxville, Iowa.

Sept. 13, 14.—Nebraska State, at Lincoln, Neb.
L. D. Stilson, Sec., York, Neb.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

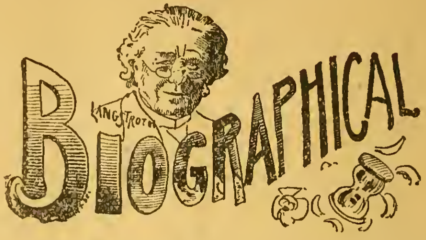
North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.......Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

Almost Every Bee-Book that is now published we mention on the third page of this issue of the BEE JOURNAL. Look over the list and select what you want. For every new yearly subscriber that you secure for us at $1.00, we will allow you 25 cents, to apply on the purchase of any book we have for sale. This is a rare chance to get some valuable apicultural reading-matter, and at the same time aid in spreading helpful apiarian knowledge among your friends.



WM. M. BARNUM.

The subject of our sketch this week, William Matthews Barnum, was born in Canaseraga, Allegany county, N. Y., in June, 1869. He moved to the adjoining village of Angelica at the age of 14, where his father had purchased a farm of some 270 acres. It was here that young William first became interested in bees.

He had a natural liking for "entomological" studies, and other sciences; and although there were no bees upon the old place, he persuaded his father to purchase a swarm for him from a near neighbor, and from that time on, when he was wanted, he could generally be found somewhere in the vicinity of that "lone bee-hive." It was a box-hive (as were all others in the neighborhood), but the next spring he had safely transferred his bees into a Langstroth-Simplicity hive, and during the summer increased it to four large, promising colonies.

The next spring he had left only the one colony—the original—but experience had taught him a lesson, and soon a fairly large apiary was established at "Burr Farm."

In the year 1889—at the age of only 20—he was tendered the position of associate editor of the *Indiana Farmer*, published at Indianapolis, Ind. This position he accepted and occupied for some 12 or 14 months. Prior to this time—in fact, from his 15th year—he had been a "voluminous" correspondent to numerous agricultural, apicultural, and poultry papers—and even some of our more scientific journals. At the age of 18 he was associate editor of seven different journals at very good salaries, besides contributing regularly to many other journals—from which it will be observed he was rather a precocious—not to speak of literary—*genus homo.*

As may be imagined, his apicultural writings were largely in the way of question marks, though at the time he was duly installed as one of the "veterans" who assisted in solving the profound queries that were sent to the American Bee Journal. It will be noticed that Mr. Barnum is still "pounding" at the propounded questions.

W. M. BARNUM.

He soon "out-grew" his position with the *Indiana Farmer*, and became editor and manager of the State organ of the Indiana Farmers' Alliance—the *Alliance Advocate*—an eight-page weekly, which ran up a circulation of 2,700, and was then sold to the publisher of the *Dakota Ruralist.*

From Indianapolis he returned to his home in New York, and soon purchased the *Belmont Dispatch*—the leading political journal of Allegany county, published at its county-seat. He was there in a fair way to settle down, as he had a good, paying business, and a congenial occupation; but after a period of 18 months he sold his plant—to an ex-county clerk—and joined his father and invalid mother, who had just moved to Denver, Colo. He is now a proud, if not opulent, resident of that beautiful city, and his 25th year finds him a satisfied part-owner and editor of a most beautiful and valuable literary monthly, the *Colorado Magazine !*

Although being without bees most of the time the past few years, he has not for a moment lost interest in the little honey-gatherers—as the different bee and agricultural journals will testify, and he hardly thinks he will be in direct harmony with his surroundings until he is again the possessor of a few colonies of bees.

Mr. Barnum is a pretty fair *mason*—that is, a "Free and Accepted one," belonging to the Royal Arch Chapter, and to about every other secret order.

While we have never met Mr. B., yet we have formed a very good opinion of him, and hope that some day we may become better acquainted than is possible through the medium of the pen or pencil. No doubt he is the very youngest among all those who reply to the questions in our department of "Queries and Replies," while Mr. E. France, we believe, is the oldest.

"The Winter Problem in Bee-Keeping" is the title of a splendid pamphlet by Mr. G. R. Pierce, of Iowa, a bee-keeper of 26 years' experience. It is 6x9 inches in size, has 76 pages and is a clear exposition of the conditions essential to success in the winter and spring management of the apiary. Price, postpaid, 50 cents ; or given as a premium for getting one new subscriber to the Bee Journal for a year. Clubbed with the Bee Journal one year for $1.30. Send to us for a copy.

Read our great offers on page 285

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Troubled with Brace-Combs, Etc.

1. My bees have not stored any honey in the supers, but have filled the brood-chamber with brood and honey. Why do they not store in the sections also? They are a prosperous colony of black bees.

2. At least one-third of every one of my frames is honey capped over, the honey being at the top of the frame always. The bees are building brace-combs at the top of the frames, and filling them with honey. When I go to look at my bees, the honey runs from the brace-combs in great quantities. Is it common for bees to do so? What must I do to prevent it?

Stevenson, Ala. C. D. CARGILE.

ANSWERS.—1. Probably they haven't got to it yet. When they get the brood-chamber filled, if they keep on storing, they must put it in the supers. A partly-drawn section or a bit of brood in the super may hurry them.

2. Those brace-combs are, alas, only too common. Slat honey-boards have been extensively used as preventives, but now-a-days they are prevented by having a space of ¼ inch between the top-bar and the sections, and by having thick top-bars. Some succeed with top-bars ⅝-inch thick, and some insist that they must be ⅞-inch thick.

More About Hive-Covers.

You did not give me enough information about the gable covers or flat, on page 42. Some think it is necessary to have the gable on account of top ventilation. Is it necessary to have top ventilation, as the flat covers fit tight, and are almost air-tight? or does it make any difference whether the bees have air on top, or not?

Tacoma, Wash. G. D. LITTOOY.

ANSWERS.—There, now, that's just what we like—to have you "talk back" when our answer doesn't exactly fit the question you intended to ask.

That question as to ventilation seems to be a hard one to settle. At one time upward ventilation seems to be in greatest favor; then, again, the tide seems to set in favor of having everything on top sealed as tight as a drum. The trouble is, that there are cases of entire success, and also of utter failure, with each, and the difficulty is to tell how much of the success or the failure is to be attributed to the presence or absence of this or that kind of ventilation, and how much to things entirely independent of ventilation.

Perfect wintering is reported with the most widely differing systems, as also failures. The lamented Quinby, at least before the advent of movable-comb hives, advocated no cover whatever over bees in cellars in winter. This was accomplished in box-hives by the very simple expedient of turning the hive upside down, thus leaving the most ample ventilation above, with everything sealed tight below. The exact opposite of this has been of late successfully practiced, air-tight above, and everything entirely open below, or at least a space of two inches under the bottom-bars.

Perhaps the truth is, that it doesn't matter so much where the air gets to the bees, so they get enough of it, and provided there be no strong draft through the cluster. So a gable cover for ventilation does not seem to be considered necessary by a great number, providing there be ample ventilation below. There may be something, however, in the claim that something more than merely one thickness of board should be over the bees when wintered out-doors.

May be a New Disease.

I have a colony of bees that has some kind of a disease—it is unsealed brood, the full size of the cell. When it dies, the capped brood is all right, and the unsealed brood that is dead all have their head in the cells in place of out, like brood that is ready to seal or hatch; and there is about 10 out of every hundred that "turn their toes up" in this way. OTTO BAUKER.

Golden Gate, Minn., Aug. 2, 1893.

ANSWER.—Is this something new? or can any of the friends help us out?

Alfalfa, Buckwheat, and Queen-Traps

I wish to try an experiment with my bees, and would like to get a little advice. I have bees in 10 box-hives, in good condition, from which I get a small amount of honey each year. I propose to put queen-traps on each hive next spring to prevent swarming. I also expect to sow an acre of alfalfa clover, and an acre of buckwheat near the bees. How much honey should I get during the season.

The land where I propose to plant alfalfa is a pasture lot with good soil. How much seed would it take, and at what cost? What is the best fertilizer? Can alfalfa be used for horses? How should it be cured?

The queen-traps I would like to have so that the queen could re-enter the hive from the trap. How much would they cost apiece? Which is the best kind?

O. R. Hawkins.

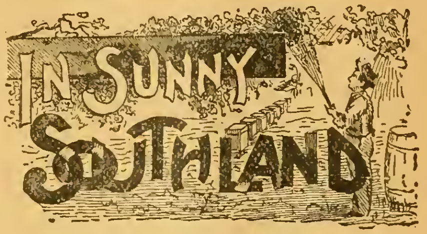
Bellport, N. Y., Aug. 4, 1893.

Answers.—Just how much honey you can secure from an acre of alfalfa and an acre of buckwheat, is probably one of the things you will never know to a certainty. Even after you have tried the experiment you will find so many things coming in to complicate the solution of the problem that you may have to give up the solution. It is not easy to tell just how much is gathered from your acre, and how much from other sources. Even if there were no other sources within a thousand miles, and you could thus tell to the ounce how much came from your acre, no two years are alike, and the next year you might get double the amount, or you might get none.

Of course we can have some general idea on the subject, and indeed may have enough knowledge to be of real value, but it is to be feared that such knowledge will never be brought down very definitely to pounds and ounces. Quinby estimated that an acre of buckwheat would yield 25 pounds in a day, and he was not given to making rash statements, but we do not know just how much foundation he had for his estimate. It is certain that buckwheat sometimes refuses to yield entirely.

As to alfalfa, perhaps some of our readers may be able to give the desired information, but we are under the impression that in the East the cultivation of alfalfa is only in the experimental stage, and that very little is known about it. But the present season may have added some knowledge, and if so we shall be glad to get it.

The Alley queen-trap is, we believe, the only one on the market, and is extensively used. The cost is 65 cents. But you must not think that a queen-trap will prevent the bees from attempting to swarm, so that no attention on your part will be needed. The trap will hold the queen, and can be so arranged that she will return to the brood-nest, but generally the bees will go on rearing young queens, the old queen will be killed, and then the bees will swarm and swarm with the intention of going off with the young queen. But with the proper attention on the part of the bee-keeper, good results with queen-traps are reported.



CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

Our Forefathers in Apiculture.

When we behold the faces of our benefactors and forefathers, such as Father Langstroth, Father Gallup (and many others I might mention that have greeted our homes through the American Bee Journal lately), I often ponder in my mind for a moment, and, oh, how I would enjoy a meeting in reality of these fathers of bee-keeping from one to forty days, or as long as they would tolerate it, and learn from their ripe minds more and more of the little busy bee! Such a meeting would be a solid comfort to me; and seeing Dr Gallup in the Bee Journal this morning prompted me to pencil these few lines.

How I would enjoy a travel over the past in company with Dr. Gallup and Father L. L. Langstroth, being led by them as a child by its father, talking about the wonderful strides bee-keeping has made since our late cruel War; and how these fathers, with hard brain as well as muscular labor, have hewn out the way for our easy and successful management of our pets. Their names will ever stand as a monument in bee-keepers' homes, and be read of and studied by generations of bee-keepers yet to come.

I would be glad if I could have the privilege of being the happy possessor of a photograph of each of these old heroes, to place in my album; and if Father L. and Father G. will let me know if I could get one of each of their photographs, I would willingly pay for the same. Should I never be permitted to meet them here, I do hope to greet them "Over the River."

JENNIE ATCHLEY.

Something More About Texas.

MRS. ATCHLEY:—Since you have been writing up Texas, I have caught the fever, and if I live I shall make Texas my home. There are one or two questions I desire to ask concerning Texas, that you failed to speak of in the AMERICAN BEE JOURNAL.

What kind of poisonous insects and reptiles have people to contend with? What diseases are most fatal? and does the yellow fever plague ever visit Texas?

Now, Mrs. A., I will ask a few questions for my own benefit: Is there any chance for a poor, hard-working man to get hold of a piece of land? Where is the school land that you speak of? Is the land good, or is it bad?

Humphries, Mo. W. R. ELWOOD.

Friend Elwood, the insects and reptiles are of such little notice here that I did not think it worth mentioning, as I have not seen anything in Texas that I was afraid of. I work in my out-apiaries every year, and I have not seen more than two or three little, harmless snakes during a period of three years. There are some rattle-snakes in some parts of Texas, but they are scattering, and live mostly in waste places, and in the mountains. I believe more people die here with pneumonia fever in the winter than any other disease; this I believe is caused by people exposing themselves, and from the sudden changes from warm to cold in winter, when I have seen it turn from a temperature of about 70° down to 30° in 10 minutes; these are what are called "Northers" in this country, but they seem to be getting milder every winter.

Honest, hard-working people are the very ones that get hold of land in this country. I know of several in this neighborhood that came to Texas a few years ago without a nickle, that now have good farms and are well-to-do people. This, of course, is largely owing to the ability of people—some are better managers than others, and you probably know that some people would not have anything if you would give it to them, as they would soon make way with it. In short, there is plenty of room here for thousands and thousands of honest, hard-working people, which are the best people any country ever had. There are yet plenty of school lands in one-quarter of the counties of the State—in Archer, Baylor, Tom Green, Lampasas, Burnett, Llano, and other counties.

Here is another letter requesting information about this State:

MRS. ATCHLEY:—I am an old bachelor. My old mother and I live here together, and we keep, on an average, 100 colonies of bees, and there have been so many failures of late years that we are becoming very much discouraged. Permit me to ask you a few questions in regard to Texas:

How often does the honey crop fail in Texas? About what would be the average of comb or extracted honey per colony in your State? How do you market your honey, and what is an average price? How much capital, besides the bees, should a person have to start with? Do you think that it would be healthy for mother down there? Would I be likely to find employment so as to make my board, at least, should I go down there about the first of March? Are you quite sure I would find a place to suit me, as I do not want to use my money to no purpose, but I very much desire to move to a better place for bees and fruit. Could we rent a place for awhile, till we could have a chance to select a home? If you can help us to to find a good home, we will be thankful.

Murphy, Iowa. W. C. NUTT.

Friend Nutt, I am a little afraid to advise you, as I fear you might not be satisfied. Please allow me to relate to you a good lesson I learned when I was a girl.

In Tennessee, where I was brought up, there used to grow on the hills and mountains huckleberries, and they were scattered all over the hills. On Saturdays myself and a lot of schoolmates would go berrying, and there were usually two companies of us—one company would persist in running from hill to hill, hunting for the thick patches, while the others would gather the berries as they came to them. Now, I always noticed that the ones that took the berries as they came to them, would carry home at night twice as many berries as the ones that kept hunting for thick patches.

So, dear friend, you might gather more "berries" to stay in one place and gather up the scattering ones rather than waste your time and money hunting for the thick patches, notwithstanding Texas is a good honey country, and all that; but I am going to tell you the plain facts about Texas as I see them, and *you must* depend upon your own judgment as to whether you will find a place to suit you or not, as a place that would suit me might not suit you. Now to your questions.

I have been keeping bees in Texas for nearly 20 years, and I have *never* had a failure of a honey crop, while others in different parts of the State have reported failures at different times; but this is dependent upon the bee-keeper just about as much as the country. Our average per colony has been, for many years, taking both comb and extracted honey together, 50 pounds, as this is the average report taken at our annual conventions for quite awhile. Some bee-keepers average more than 100 pounds per colony for years, while others almost fail entirely, which puts the average down to 50 pounds.

I have always found a market here at home for all the honey that I could produce, and in fact I have never yet had more nice honey, either comb or extracted, than I could sell readily. Our average price has been about 10 cents per pound—comb honey ranging from 12 to 15 cents per pound, and extracted from 3 to 4 cents less.

As to the capital required to start you besides the bees, it would be hard for me to answer, as it will depend entirely upon circumstances, how you live, and work, etc. If I had 100 colonies of bees in Texas, and supplies to run them one year, and $100 in money, I would feel pretty independent.

Yes, I think it would be healthy for your mother down here, as there is no local cause for sickness unless you should settle in the lowlands where malaria exists; but people are sick some anywhere, and we all have to die sooner or later.

I think you can *always* find employment to make your board, and more, too, in Texas; but, of course it would depend on what you can do, as we have had some grown men on the farm that could not hitch up a team to a plow or wagon, and of course were not worth their board on a farm. Of course, it would be best for such men to go on a farm and pay board, and learn to work before getting a job.

No, I am not sure that you would find a place to suit you, but if a country where bees do well, that is healthy, with good land, good people, good schools, good churches, and a fine country would suit you, then you need not be afraid to make a leap towards Texas.

Yes, there are nearly always good places to rent on reasonable terms.

JENNIE ATCHLEY.

Convention Notices.

IOWA.—The eleventh annual convention of the Iowa State Bee-Keepers' Association will be held in their tent at Des Moines. Iowa, on Sept. 6th and 7th. All friends and bee-keepers are cordially invited. For programme write to the Secretary.

J. W. BITTENBENDER, Sec.
Knoxville, Iowa.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land. FRANK BENTON, Sec.
Washington, D. C.

NEBRASKA.—The yearly meeting of the Nebraska State Bee-Keepers' Association will be held at Lincoln, Neb., on Wednesday and Thursday evenings, Sept. 13th and 14th, 1893. This will be held in connection with our State Fair, and we would be pleased to have Eastern visitors meet with us. One-way excursion rates will be given on all railroads from Chicago to Lincoln, at that time. Let every bee-keeper call and get acquinted with the Nebraska honey-producers, whose headquarters are always open.
York, Nebr. L. D. STILSON, Sec.

Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the BEE JOURNAL for one year, for $1.15.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

QUERIES AND REPLIES

What is to be Gained by Reversing Frames?

Query 886.—In your opinion, is there anything to be gained by practicing the reversing of frames? If so, what?—Colorado.

No.—G. W. Demaree.

I do not think there is.—M. Mahin.

Not enough to pay for the trouble.—P. H. Elwood.

Not enough to pay for the trouble.—Emerson T. Abbott.

Not in this locality, and with my system.—H. D. Cutting.

No. Where is the man who reverses now?—Dadant & Son.

I do not think so. I never practiced it.—Mrs. L. Harrison.

Practically, there is nothing to be gained.—J. P. H. Brown.

I never considered it favorably enough to try it.—Jas. A. Stone.

I believe it is not worth the extra expense, time, etc.—J. M. Hambaugh.

I have not reversed. I didn't think it would pay to do so.—S. I. Freeborn.

It makes frames solid full of combs. I am unable to say further.—R. L. Taylor.

Very little. See the American Bee Journal of eight or ten years ago.—J. H. Larrabee.

I never have practiced reversing of frames. I don't see anything to be gained by it.—E. France.

Yes, but the game is not worth the candle. A reversible hive is much to be preferred.—A. J. Cook.

I don't know, but I think it might be a good way to get combs built down to the bottom-bars.—C. C. Miller.

No, unless it be one reversing to cause the bees to build their combs solid to the frames at all points.—G. M. Doolittle.

I do not think there is. The only point of advantage, as I look at it, is, that badly filled frames can oftentimes be caused to be filled full by so doing; but there are other and better ways of accomplishing the same end. Then why practice reversing?—J. E. Pond.

No; the results do not warrant the time and trouble. A strong colony will give you the identical same results. Keep strong colonies.—W. M. Barnum.

I do not think there is any money gained, but there may be some satisfaction gained in getting the combs securely fastened all around.—Mrs. Jennie Atchley.

I think the chief advantage is in securing solidly filled frames. If reversed at the right time, the combs will be attached securely all around. I doubt if the practice pays in other respects.—Eugene Secor.

You may, by reversing frames, force the bees to carry undesirable winter stores into the supers at certain times. I have no use for them, and can see where much harm might result in the hands of the inexperienced.—R. F. Holtermann.

Well, yes! You can get the bees to fasten the comb to the bottom-bars. If the frames are deep, and a good strip of comb is capped over solid full of honey, we can compel the bees to move it up, and a part will go into the sections.—C. H. Dibbern.

Yes. It secures the filling of the frame with comb. This is sufficient to make it profitable. It can also be made to pay well at other times, but requires experience and very careful management to make a success of it at all times.—James A. Green.

Often, by judicious handling, both sides and ends of the frames may be filled with brood several days in advance of what they would be if left alone. But care must be taken not to produce more larvæ than you have bees to care for them.—Mrs. J. N. Heater.

"**A Modern Bee-Farm** and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is $5\frac{3}{4}$x$8\frac{1}{2}$ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the Bee Journal for one year, for $1.70.

Contributions

Bee-Diarrhea—Its Cause and Prevention.

Written for the American Bee Journal
BY W. Z. HUTCHINSON.

Of all the obstacles with which bee-keepers of the Northern States have to contend, none equal the losses of bees in winter and spring from diarrhea. Many are the causes to which it has been attributed—cold, confinement, improper food, dampness, "pollen," lack of food, or of ventilation, etc., have all been blamed for this trouble.

The disease, if such it can be called, is simply the result of an over-loading of the intestines. Cold confines the bees to their hives until they are unable to longer retain their feces, and the result is termed diarrhea. Simple enough on the face of it, isn't it? Doesn't seem as though there could have been so much discussion about it, does there? Well, it comes about something in this way:

One man says it is caused by the cold. Another says, "No, it isn't. We have long, cold winters here, yet my bees do dot suffer from diarrhea. If it was the cold, they would have it." He doesn't consider that his location may furnish a different class of food.

Another says that confinement does not cause the trouble, as his bees were confined in the cellar so many months, and suffered little or nothing. This man forgets that in a warm cellar much less food is consumed, and, consequently, the longer it takes to overload the intestines.

Another lays the difficulty to the consumption of pollen. Another says, "No, my bees have plenty of pollen in the hives, and they never have the diarrhea. If pollen causes diarrhea, why don't they have it?" This man forgets that pollen in the hives does not cause diarrhea, it is its *consumption* under such conditions that the bees cannot unload the intestines. We may not know exactly what are the conditions that cause an undue consumption of pollen, but we do know that in almost all cases of bee-diarrhea, the fecal mass is almost wholly pollen. We also know that when bees have no pollen in their combs, when their only food is pure cane-sugar (honey contains some grains of pollen), they do not have the diarrhea under the same conditions when bees with natural stores have perished by the wholesale. I feel quite *certain* that bees with only pure cane-sugar for stores, placed in a cellar where the temperature is about 45°, will bear a confinement of four or five months with no traces of disease.

Some honey is nearly as good as sugar for winter stores. At least, bees have many times passed the winter with it for food, and came out in the spring with perfect health. The difficulty is to always *know* when honey is a healthful food for winter. There are some sections of the country where it never is. Mr. Bryon Walker, in the eastern part of this State. near large swamps, could not successfully winter bees. He tried almost all known methods for a dozen years or more, and finally moved to another locality where he is more successful. Before he moved away, he practiced brushing the bees from the combs in the fall, and killing the bees. They were certain to die in the winter, and he reasoned that he might as well save the honey that they would consume, and keep his combs in a clean condition. In the spring he went South and bought bees by the carload, and stocked his apiary again.

To be able to decide in regard to the suitability of honey as a winter food for bees would be a great step. If a bee-keeper could send a sample of his honey to some chemist and learn if it were safe for his bees to winter upon it would be a grand thing. If it were not, he could extract it and feed sugar. What is it, aside from the floating pollen, that makes some honey unsuitable for a winter food for bees? This is a hard nut for our Experimental Apiary to crack.

To remove all of the honey from an apiary when we do not *know* that it will prove an unsafe food, and substitute sugar, for the purchase of which we may not have the ready money, with honey of slow sale, is a proceeding that would not be considered business-like. Bee-keepers prefer to take the risk, one year with another, of leaving their bees their natural stores, when these stores are apparently well-ripened honey, and then using all other precautions possible to ward off the ill-effects of confinement.

If we could only tell in advance what the coming winter wouid be, we would know whether to put the bees into the cellar, or to protect them on the summer stands. If bees could only have one or two good, purifying flights during the winter, I should prefer to winter them in the open air. But of this I cannot be assured, and, as they winter no *worse* in the cellar in a warm winter than they do in a severe one, I prefer the latter plan. It is possible that the house-apiary may yet furnish the advantages of both methods—warmth and an opportunity for flights when the weather permits.

In the cellar we can control the temperature, also the moisture to a certain extent. If we give them sugar stores, we then have everything under our control except the length of the confinement, which will not usually vary sufficiently to undo our plans. It is only by cellar-wintering that we can have the same conditions year after year.

Just a few more words about stores: Ordinary colonies in a warm cellar consume about two pounds per colony each month. These stores are taken from the center of the hive. By feeding each colony seven or eight pounds of sugar syrup at the end of the season, it will be stored in the center of the hive, and it will be largely this food that the bees will consume during their confinement. This is almost the same as their having all sugar stores. Where a man winters his bees year after year with no trouble from diarrhea, all these precautions are unnecessary. They are for the man who *does* have trouble.

To recapitulate: If the honey of my locality was uniformly good, I would give but little attention to the food. If it frequently proved unsuitable, I would feed sugar late in the season. I would leave the bees in the open air until there was slight prospect of their enjoying another flight; yet I would wish to have them in the cellar before the advent of snow-storms and severe cold. I would take in the hives with no bottom-boards, and stack them up with two-inch blocks between the hives. I would carefully watch the temperature, and never allow it to go below 40°, nor above 50°. The temperature can be kept up by the use of an oil-stove, but I would have a hood over the stove, and a pipe to carry off the gases of combustion. If this pipe is connected with a stove-pipe in the room above, it will also help to ventilate the cellar when there is no fire in the oil-stove. I would also have a wet bulb thermometer in the cellar, and not allow the degree of temperature marked by the wet bulb instrument to approach nearer than 3° to that of the dry bulb, with a temperature of 45°.

Just as soon as it was warm enough in the spring for the bees to fly, I would remove them from the cellar. This may be two or three weeks, or a month earlier than steady warm weather may be expected, but it will be seen that an early removal shortens the confinement that much. When a bee has retained its feces three or four months, a further retention of three or four weeks may be all the difference between death and fair health. But I would not leave the bees without protection. I would pack them the same as I would in the fall if they were going to be left out-of-doors all winter, only I might not do it in so thorough a manner. So thick packing is not needed, and it may be held in place in the most simple and cheap manner. A super filled with sawdust will answer for top packing.

Flint, Mich.

Bee-Keeping in the Santa Ana Valley, in California.

Written for the American Bee Journal

BY DR. ELISHA GALLUP.

I now take up my pen for the purpose of writing for the old established and reliable AMERICAN BEE JOURNAL once more. It was my old and first love in the form of a bee-journal.

I am going to tell you what two young boys have done here. They began, in the first place, to take bees and honey out of dwellings, stores and churches. They received pay in the most cases for cleaning them out and removing them, and got the bees and honey for nothing. They also picked up many swarms on the weeds, in trees, etc. They made their own hives. Two years ago they moved their bees into the foothills, and established an apiary. This season they have secured 20 tons of honey, and have sold several tons at 6 to 6½ cents per pound.

The Santa Ana valley is a great place to rear bees, as they swarm from April 1st up to the middle of October, and can gather honey at any time sufficient to live on in winter or summer. Sometimes they store quite a good quality of honey, but not often. The valley honey is mostly of a very inferior quality, but our mountain honey is of superior quality, with the exception of the last extractings.

I have been repeatedly asked if it costs much to establish an apiary here, and this article is partially to answer that enquiry. There are parties here that make quite a business of rearing bees to sell. They get up very cheap movable-comb hives and Italianize and sell at about $1.50 per colony, and sometimes less. One can pick up colonies in nail-kegs, old boxes, barrels, etc., at from 25 to 50 cents each. One party bought a barrel a short time ago for 50 cents. He sold $3.00 worth of honey out of it, and had bees enough to make two good colonies.

Many colonies can be obtained by taking away the bees and leaving the honey for the owner. Understand that any one who is so inclined can save a swarm or more, for through the months of April, May and June the country is full of flying or clustered swarms; and then again in September and October they take possession of vacant chimneys, church-steeples, cornices of buildings, etc. In letting a contract for a house, it is now customary to insert in the contract that it must be bee-proof.

Santa Ana, Calif., Aug. 14, 1893.

The Experiment Station—What It May Do for Bee-Keeping.

Written for the Michigan "Grange Visitor"

BY HON. R. L. TAYLOR.

Bee-keeping has been carried on for thousands of years, but it is only within the recollection of living men that it has passed out of the mediæval, which was probably also the pre-historic stage. It is natural, then, that in this, more perhaps than in other rural occupations, there should be questions pressing for solution. It is much that these questions are being propounded, questions for which until recently there was no basis, and this very condition gives promise of certain and valuable results. It is as if the gates were just opened and the apiarists were crowding forward to see what a view of the inside would reveal. The interest thus exhibited will be sure to observe and secure what is of value.

What the station may do for this class is to undertake the solutions of these questions that are uppermost, by investigations which the members of this class cannot well undertake separately. For instance, in the matter of diseases of the bee there is much to be learned. It is well known that foul brood, the most dreaded of these diseases, is caused by a bacillus which is liable to convey the disease to any hive which it may enter. It is known that it may be carried from one hive to another in honey. May it be so carried in wax? May it be conveyed by a hive which had before contained the brood-combs and bees of a diseased colony? If so, how may they best be disinfected? Whether the disease may be conveyed in wax made from combs from an infected colony and so carried from one part of the country to another in comb foundation, is a question of especial interest, and demands speedy and careful attention.

Again, it is a mooted question to what extent it is profitable to use comb foundation in the brood-chamber. Of course a single experiment would not settle it, but if carefully pursued on a somewhat extended scale, the truth can be made known. At the station this season an attempt in this direction has been begun with twelve colonies. Four swarms were hived on comb, four on comb foundation and four on frames with starters only, and it is quite certain the results will be instructive.

Then there is quite a large variety of comb foundations used. These are distinguished by a difference in weight as well as by difference in the shape of the septum and of the side-walls caused by differences in the machines with which it is made. Now some bee-keepers select the extra-thin, some the thin and some the medium; others choose that with a flat bottom, others again want that of the natural shape, and in almost every case the reasons for the choice are purely fanciful. Which is really the best? Which is least objectionable in the honey, and, by the use of which do the bees secure the most honey? By proper experiments the station should be able to tell bee-keepers what is the truth in these matters.

It has been assumed that it is more profitable to have very strong colonies rather than moderate ones during the time when the crop is being gathered. The station ought to be able to say definitely in time whether this is a sound assumption.

Looking in another direction we find from the very expectancy with which new claims and investigations are regarded, and the eagerness with which supposed truth is received, especially in matters where there is a promise held out of a saving of labor or trouble, that it would be desirable that there should be a place where new inventions in the way of apicultural appliances will be promptly and impartially tested, thereby saving individuals large amounts in the aggregate for what proves in the end to be useless traps; as well as introducing to them really useful implements which otherwise would be neglected from a fear that their purchase would prove a useless expense. Already in this line experiments have been made with the plausible inventions known as the non-swarmer and self-hiver—experiments which should save the bee-keepers of the State much money if they will only read the published reports of their workings.

The foregoing may serve to give an idea of the nature of the work which the station ought to perform, and a hint to those interested of what benefit they ought to derive from it. Of course, other items of work should be undertaken as the favorable season of the year for them comes on, and a watch kept for the rising of new questions which seem to deserve consideration.

Lapeer, Mich.

More About Pulled Queens and their Importance.

Written for the American Bee Journal

BY H. F. COLEMAN.

Mr. J. H. Andre, on page 120, asks for more about pulled queens as a preventive of after-swarms. I have only experimented in this line this season, but my experience is, that as soon as a queen gets her breakfast, after being hatched, she is ready for business. Her first business is to destroy all rival queens, and the colony to which the pulled queen is introduced having just swarmed, is so weakened that she is suffered to destroy all queen-cells, and after-swarming is thus prevented.

Having caught the idea of using pulled queens, from something that was written by Dr. Miller, I have thought and experimented no little along that line, and now see, as I think, in it great possibilities. When understood we cannot only use pulled queens and ripe queen-cells with colonies just swarmed, as stated by me on page 17, but we can use with such colonies virgin queens of any age up to two or three days old, or at least this has been my experience.

As soon as queen-cells are capped, the colony is living in the expectation of a virgin queen, and it is perfectly natural for the bees at this time to accept a virgin queen if she is introduced in a gentle manner. In these cases I use the following rules:

When I find ripe queen-cells, from a choice queen, in excess of what I have immediate use for, I cut them out and put them in the West spiral cages to hatch. As soon as a swarm issues from another colony, I select one of the nicest of the queens in these cages, and take the cage containing her and put in the top of it a thin plug of comb, and then place the cage between the combs of the parent colony. I then take a tea-spoonful of honey, and pour about the cage, letting a little of it drop on the plug in the cage. In a few hours the queen is liberated, and with me, so far, safely introduced.

In introducing pulled queens, I simply open the point of the cell and let the queen crawl quietly down among the bees; being careful always not to touch her with my hands. If she is handled, or excited in any way, the chances of introducing her successfully are not so good.

All who have tried it, know that it is a very difficult matter to introduce a laying queen to a colony that has just swarmed. The reason of it is, that the bees are looking for a virgin, and not a laying queen. Keeping this in mind, we will use virgin queens, pulled queens, or queen-cells, with all such colonies.

Sneedville, Tenn.

The Experiment Station and "New Education."

Read at the Missouri State Bee-Convention

BY C. L. BUCKMASTER.

It gives me great pleasure to be privileged to read an essay which I hope will result in something substantial in the advancement of this our most delightful pursuit—a pursuit which regales the human mind with more pleasing facts than are found in mathematics, philosophy, history or literature.

First, let me say to you that I have been acquainted with our College of Agriculture, and our Missouri Experiment Station from their incipiency, being a student of our University when the corner stone of the Scientific and Agricultural College building was put in place, and the building dedicated to practical education. I was on the ground when the commissioners located and selected the farm of which you have heard so much. I would much prefer to tell to you something of the pleasant and delightfully happy hours I have spent in its halls and on the campus, or on the classic banks of Hinkson, which winds its most graceful course along the borders of the farm where oft in the stilly moonlight, or in the early morn, we practiced our junior and senior oration, sure that the Stephen's medal would be ours on the coming commencement when we would walk forth to conquer the world, exclaiming, *Scientia regina mundi !* And why should we not, when our "Alma Mater" taught that science should ever rule ?

I say I would like to tell you of these and the happy hours I have spent under the elms and basswood trees in the campus, "Where soft eyes looked love to eyes which spake again, and all went merry as a marriage bell"—but I am called here for another subject.

The Missouri College of Agriculture has now been in active operation for 22 years and was established ostensibly to educate the sons of the farmer and mechanic in the practical operations of the farm and the workshop ; that is, to put within the reach of every son of Missouri a thorough and practical scientific education ; to teach the farmer's son what soils are best adapted to certain crops ; how to cultivate ; how to manure ; what varieties of fruits are the most profitable ; what breeds of horses, hogs, cattle and sheep will bring him the greatest reward for his labor ; what insects are the most useful, and which are the most destructive—and not only how to increase the former, but how to destroy the latter.

The foregoing are some of the leading objects for which the general government and the State of Missouri established and now maintain the College of Agriculture at Columbia, and can it be true at this late date—22 years after its establishment—I am here telling you that this institution of scientific learning has never had a class in apiculture ? That this great institution that expends thousands of dollars every year for practical education has never yet been the possessor of a single bee-hive and its contents ? And must I tell you that the professor of biology, who this very minute fills the chair, would run from the little busy bee with as much energy as he would from the grizzly bear, or the Rocky mountain cougar ? I say, must I stand before you and tell to you these things—to you, who are engaged in the most delightful of rural pursuits—to you who are furnishing to the public the most ancient, the most wholesome, and the most delicious of sweets that the taste of man has ever experienced, and whose occupation brings to the aggregated wealth of our State thousands upon thousands of dollars ? And who knows how many millions of dollars go to waste every year for the want of proper practical education in this pursuit ?

Ours is a pursuit worth more to the horticultural interest of our State than all the beautiful flower-gardens and hot-houses that have graced the horticultural department of the college from its establishment. Yet, this great scientific school, supported at public expense for the very purpose of teaching the life habits of the useful insects, is not expending one single cent in this direction!

I am not here to pull down other departments—I love flowers as well as any one—but I am here to ask you, intelligent ladies and gentlemen, why our pursuit is not recognized ? In my feeble way I shall try to tell you. I think there are two principal reasons, viz. : First, our Board of Curators is composed of lawyers, doctors, preachers, stock-breeders, bankers, and those of other professions who know nothing of our needs ; and, in the second place, we ourselves are derelict in our duty.

I say, let us wake up to our duty. Let us not permit the money appropriated by the general government, to revert for the want of opportunities to be expended, when we need it so very much. Let us see that the money appropriated for the Agricultural College is not expended for law libraries or philosophical apparatus, while our pursuit—a legitimate one—is left out in the cold !

"Let us, then, be up and doing,
 With a heart for any fate,
Still achieving, still pursuing,
 Learn to labor"—but not "to wait."

We have already waited too long. Let us give the resolution that is to follow this essay a unanimous vote, and let us send it with a committee to see the Board of Curators, and tell them in earnest language that we merit recognition. Let us tell them that the College of Agriculture ought to have an apiary, and a practical teacher in bee-culture.

So much for the College of Agriculture. Now for the Experiment Station which was established by the Curators of the University on Jan. 10 and 11, 1888, in pursuance to an act of Congress approved July 2, 1887. Let us turn to these sections and see why the general government established these Experiment Stations in the several States and Territories, and appropriated the sum of $15,000 annually for the use of the Agricultural colleges. Here are four sections of the "Act of Congress:"

THE LAW OF CONGRESS ESTABLISHING AGRICULTURAL EXPERIMENT STATIONS.

An Act to establish Agricultural Experiment Stations in connection with the colleges established in the several States under the provisions of an Act approved July 2, 1862, and of the Acts supplementary thereto.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established, under direction of the college or colleges or agricultural department of colleges in each State or Territory established, or which may hereafter be established, in accordance with the provisions of an Act approved July 2, 1862, entitled, "An Act donating public lands to the several States and Territories, which may provide colleges for the benefit of agriculture and the mechanic arts," or any of the supplements to said Act, a department to be known and designated as an "Agricultural Experiment Station:" *Provided*, That in any State or Territory in which two such colleges have been or may be so established the appropriation hereinafter made to such State or Territory shall be equally divided between such colleges, unless the legislature of such State or Territory shall otherwise direct.

SEC. 2. That it shall be the object and duty of said Experiment Stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories.

SEC. 3. That in order to secure, as far as practicable, unifority of methods and results in the work of said stations, it shall be the duty of the United States commissioner of agriculture to furnish forms, as far as practicable, for the tabulation of results of investigation or experiments; to indicate, from time to time, such lines of inquiry as to him shall seem most important; and, in general, to furnish such advice and assistance as will best promote the purposes of this act. It shall be the duty of each of said stations, annually, on or before the first day of February, to make to the Governor of the State or Territory in which it is located a full and detailed report of its operations, including a statement of receipts and expenditures, a copy of which report shall be sent to each of said stations, to the said commissioner of agriculture, and to the Secretary of the Treasury of the United States.

SEC. 4. The bulletins or reports of progress shall be published at said stations at least once in three months, one copy of which shall be sent to each newspaper in the States or Territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same, as far as the means of the station will permit. Such bulletins or reports, and the annual reports of said stations, shall be transmitted in the mails of the United States free of charge for postage, under such regulations as the postmaster general may from time to time prescribe.

From the reading of these sections, stating the purposes of the experiment station, you see we are as much entitled to recognition as the cattle, sheep and hog breeders of our State. Why should we not ask and insist upon recognition? I say, *let us do it.*

I am a public school teacher as well as a bee-keeper, and as a progressive teacher I am a strong believer in the "new education" of which you now hear so much. What is the new education? I will tell you. It consists in educating the hand as well as the brain. It teaches the boy to use the tools with which he constructs with material the conceptions of his mind; to build the house as well as to plan the architecture of it. It teaches *to do* as well as *to know.*

This is the grand forward movement in education, and I know of nothing that so opens the eyes of the student to the practical side of life, like this pursuit of bee-keeping. There is nothing like the little busy bee to teach him the practical industry of a useful life. Therefore, this subject ought to engage the attention of the directors and curators of our experiment station, as well as the teachers in our mechanical and scientific college.

Let us go away from this meeting

with a determination to meet next time in the halls of our College of Agriculture, and to see what it is doing for the cause of the new education; and, also, to do what we can to show the teachers that we have something good in store for the education of the coming generations.

Independence, Mo.

Colony on Scales—Interesting and Valuable.

Written for the Farmer and Dairyman

BY D. KAUFFMAN.

I have had one of the best colonies in my apiary on a scale during a number of years, and in one year marked down every night the amount gained for the day, and also kept a close watch on the amount of surplus honey stored, and from this I found that when bees gain from one to three pounds, about one-quarter of the gain is stored as surplus honey, and when the gain is from three to eight pounds, about one-half is stored as surplus honey, and from the record kept from last season, about two-thirds was stored as surplus honey. These experiments were all made for extracted honey.

But it seems to me that the rearing of brood would not have anything to do with the gain of a colony of bees, for if the bees did not feed the brood it would not gain in weight, and if they take the feed from within the hive, it would not get any heavier on account of the brood; but it would make a difference in the amount of surplus honey stored, and when bees gain from 10 to 16 pounds per day, they will lose from 3 to 5 pounds during the night; and should the next two or three days be cool or rainy, so that the bees could not fly, the bees would lose about 3 pounds in the first 24 hours, 2 pounds in the second, one pound in the third, and ½ pound in the fourth day.

The loss is caused by the evaporation of the honey, and I think it is nearly as great when bees gather honey as when they do not, so that this would make the actual weight carried in by the bees during one day from three to five pounds more than the scales would show, by weighing the hive in the morning and again in the evening.

I believe that when bees gain at such rates the old ones wear out as fast as the young ones come on, for they fill up the brood-combs with honey as fast as the young bees hatch, so that the queen will not be able to find any empty cells to put any eggs in, especially when running for comb honey. I believe there were one-fourth less flying (or working) bees in my apiary, at the close of the honey season, than they were when I first put the scales under the hive on July 28th, and three-fourths less brood.

I think that it is a great help to have a hive placed on a scale during the honey season, for you can tell just what the bees are doing, and how fast you will have to get the sections ready to put on, how much more room they need, etc., from two to five days sooner than you would if you had no scales, and these two days would amount to several hundred pounds of honey for each day in an apiary of from 50 to 100 colonies.

The Cures for Foul Brood—Scalding Hives.

Written for the American Bee Journal

BY J. L. WOOLDRIDGE.

I want to say a few words to the readers of the AMERICAN BEE JOURNAL, whose apiaries are affected with foul brood. Like Mr. Parcher (see page 150), I have taken great interest in all I have seen in print regarding it, and I kindly thank those gentlemen for their advice. But don't give it to us so fast.

I first read Cheshire, who recommended phenol, and said salicylic acid would not cure. I then read Mr. Kohnke, who said salicylic will cure, and phenol will not cure. Then Mr. McEvoy comes in and says neither of those remedies will do, and offers his cure. Since then some one else disputes his method, and some one else disputes his, and so on. If I had believed everything I have seen recommended as sure cures for foul brood, I would have come to the conclusion that they were like "sure cures" for consumption, and none of them were of any account, and the result would have been my apiary would have still been diseased with foul brood.

Fellow bee-keepers, you can't try everything you see recommended, but if you will do just as Mr. McEvoy tells you to do, I don't think you will have to try any other remedies. I cured the disease in my apiary by putting the bees off as natural swarms, burning the brood-nests and scalding the hives, etc.

Now let us try that scalding business. First, cut up a big pile of dry wood. What will we scald them in? Here is a

10-gallon kettle—the best thing we can get—that will do. Fill it with water, put a fire around it, and make it boil while getting the hives ready. Now let's scald fast while the water is hot. Look here, they will not go quite half way into the water, so take a large dipper and scald the sides and bottom, then turn the other end and scald it. Chunk up the fire if the water gets cool. When boiled down, put some more water into the kettle. Fire up, and get it to boiling again; and so on until it is finished. Now they are done, and aren't they pretty things—each end stained yellow with propolis, and a white strip around the middle? Besides, everybody that comes along would ask, "Why did you paint those hives that way? Why didn't you paint them white or yellow, and not have that stripe around the middle?"

Now, you see it is a deal of a job to scald hives, and I would just risk Mr. McEvoy for all of it.

Ennis, Texas.

Our
Letter Box
Reports, Prospects, &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Evening-Primrose is It's Name.

I send a weed that the bees are very fond of. It grows along the waysides, and is about 4 to 5 feet tall, with a white blossom. Please name it in the Bee Journal.

Wallace, Ills. Joseph Mason.

[The weed you enclose is *Gama biennis*, belonging to the evening-primrose family. It is not an uncommon weed, and furnishes a large quantity of pollen of good quality, but not a large amount of nectar. The pollen is very adhesive, and readily collected.—Ed.]

An Experience with Robber Bees.

For the benefit of others, I will give my recent experience with robbers (I mean robber bees). A short time since I was introducing some queens at the middle of the day, and robbers got a taste of nectar, and insisted on taking all the honey from several weak colonies. They kept it up all that afternoon, and were up at the peep o'day next morning. I tried everything I could think of, then read all the books I had on the subject, and continued the remedies found in them. Still they kept on "a-robbin'." I then removed the queens from the hives that were robbing, and in 30 minutes the robbing ceased. I allowed them to remain queenless for 48 hours, when I returned the queens in the usual way, and now all is serene.

This has been a splendid honey year in this locality. My best colonies averaged over 100 pounds of comb honey each, which I sold readily at 12½ cents per pound. I use dovetailed hives, 8 and 10 frame, but I get the best results from 10-frame hives.

The American Bee Journal has been a regular visitor at my house every Friday since February, and a welcome one at that. In this instance, Friday has been a lucky day at our house. M. D. Andes.

Bristol, Tenn., Aug. 13, 1893.

Stopping Swarms with a Mirror.

My attention being called to Susie's communication on page 73, I want to tell her something. I don't believe in ringing bells, nor in hammering mother's tin-pail or dish-pan all out of shape, to stop swarms; but my experience has been that I have never lost a swarm when the sun was shining. Take a medium-sized looking-glass, and flash the sun's rays among the thickest part of the swarm. Three years ago I had a swarm begin to alight on the top of a maple tree some 50 feet high; I threw the sun's rays on them in such volume that they quit the limb and came down and clustered within six feet of the ground, on a small bush.

It is a well-known fact that bees depend more upon location, than on the appearance of their hives. I think if they design to abscond, they take their bearings before starting, and when the glass is brought to bear on them, they see, "as it were," two suns beaming on them, and then they are in about the same predicament a man would be if taken out in a dark night blindfolded on an open prairie, with a light on the north and one on the south of him, and told to find his way to any given point.

The bees' ideas of locality are mixed immediately, and after puzzling their little brains over the phenomenon, without being able to solve the mystery, wisely conclude to settle and await developments. Exceptions to this theory will be treated with respect. T. C. Kelley.

Slippery Rock, Pa.

Queens Laying Eggs in Queen-Cells.

On page 789, for June 22nd, Mr. Thomas Johnson asks Mr. Nelson if he has any evidence of queens laying in queen-cells. I don't know as to Mr. Nelson, but I have some very good evidence that they do.

This summer I found a colony of black bees preparing to swarm. One evening I took a frame of brood from them to use in forming a nucleus; I put a comb in its place with a number of queen-cells started, that had been started the previous year. I looked in the next day, and found the most of the cells with eggs in them, and the queen on the comb. These queen-cells were filled first, before the comb was filled with eggs. I put the comb back, and in five days I looked at it again, and found the cells coming on all right. I dipped the larvæ out of the cells, and put back the comb.

The next day I looked, and the cells had eggs in them again, and in three days larvæ. There being two older cells on another comb, they swarmed in a day or so. Now after they swarmed I tore down the two capped cells, and dipped the larvæ out of the rest, being plenty of eggs in the hive, and on some combs there were no more eggs found in the cells, but built over larvæ. I have watched very closely, but I have never known eggs moved to queen-cells.

I agree with Mr. Johnson, that a virgin queen is death to queen-cells, but not so with a fertile queen when preparing to swarm. I hope Mr. Johnson will say that I have no experince about bees. I see he gave no evidence that a queen does not lay in queen-cells. R. A. SHULTZ.

Cosby, Tenn.

Piling in Honey—Rare Nucleus.

Our bees are piling in honey now at a rapid rate. The season with us, up to Aug. 1st, was moderately good. About that time the whole apiary turned loose, and have been gathering honey at a rapid rate ever since, and have swarmed some. Thousands of drones are being reared the same as in April and May. Our apiary consists of 100 colonies or more of pure Italians. Every colony except two contains daughters of imported queens. It is a sight to behold, to see an apiary of 100 colonies of pure Italians.

Here is what a 3-frame nucleus did: Early in April a colony was moved and a new hive put in its place, and in it three frames of bees, brood and honey were put. The product of this nucleus was three supers of white comb honey, of 24 pounds each, and a good swarm besides. Sally out the bees that can beat this. We haven't seen them.

CLEVELAND BROS.

Decatur, Miss., Aug. 14, 1893.

The Piping and Quahking of Queens.

Dr. Miller, on page 147, tells about young queens piping and quahking, and says that the one that is out of the cell pipes, and the quahking is by young queens that have not left their cells, but would do so at once if the coast was clear. Now, if I had read his article before I ever reared any queens, I would never have reared any on the plan that I use now. My method of rearing queens may not be the best, but it suits me, and until I read of a better plan I will keep right on. Dr. Miller can't make me believe that they will not come out, or that the bees will not let them out, when there is one already out piping at them.

My plan of rearing queens is by taking the breeder out of her colony and putting her in some other; after the cells are sealed I cut them out and put them in a hatching-cage, which is made the same size and thickness of brood-comb frames; this is divided into compartments about three inches square; on one side is a zinc slide, on the other screen-wire and perforated zinc. After I get all the cells cut out and placed in this frame, I take out a frame and put it in a nucleus (to get rid of it so I can hang the queen-cells in its place). When hatching-day comes, I take out a frame for every queen that is hatched, and place it in the nucleus, and turn loose a queen to them. I have had ten young queens in a hive at one time, not loose and piping, but all quahking to get at each other to reduce the surplus (queens) in that hive.

After my queens are mated and laying I dispose of them, and put the frames all back into that hive with one of the queens, and as there are eggs in nearly all frames, the colony does not lose much time, but gets down to business without any trouble.

Galt, Mo. JAMES H. ROSE.

Anent the Experiment Apiary.

In response to the editor's saying, on page 168, "We would now like to learn how our readers view the matter of experiments in apiculture," I would say, "Blessed is the man who expected but little, for he shall not be disappointed." Not much good or ill will come of it to us bee-keepers. Will Muth come down from the house-top apiary? Doolittle from muddling and meddling with brood in spring? Will France give up his quadruple hive, and his peccant for the black bee? Verily, no. Will Dadants adopt a small brood-chamber? or A. I. Root abandon his chaff hive? A person may run an apiary successfully from a dollar point of view, even if he doesn't know verse from prose. It requires a scholar and philosopher to conduct an experiment apiary successfully. We have no scientific bee-keepers in America. Think of Mr. Taylor enthroned on the center of his merry-go-round apiary, telling me what to do, and how to do it! Ha! ha!

Beason, Ills. JAMES HAMILTON.

[Certainly, Bro. Hamilton is joking in the above. No one expects that any successful bee-keeper will give up any methods or fixtures that are satisfactory in every way to him. Experiment apiaries are desired for the settlement, if possible, of questions that are now undecided, and for discovering better and more helpful ways in which to produce the most honey. Certainly, none could be sincere in their opposition to them.—ED.]

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, at its last meeting, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

* * *

The following Quotations are for Saturday, Aug. 26, 1893:

CHICAGO. ILL.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, white, 8c.; amber, 7c. Beeswax doesn't move at any price. J. A. L.

CHICAGO, ILL.—The receipts of honey are quite liberal; the very best grades are bringing 15@16c. The demand just now is hardly equal to the supply, and we are receiving many inquiries concerning the market. We are of the opinion that it will not be any higher but may go lower, as money is very scarce and people seem to economize in the way of honey purchases. The darker grades are not meeting with any demand. Nearly all of the new honey is of very fine quality. Extracted is bringing from 5@7c., according to color, flavor and style of package. Beeswax is very dull at about 20@22c.
R. A. B. & Co.

CHICAGO, ILL.—Honey this year is being placed on the market earlier than last season, but the demand is restricted and will be light until small fruits are out of the market, and with the prospect of a large crop, buyers will be particular as to quality, and the best will find ready sale upon arrival. No. 1 comb, 16c Extracted, as to quality, 5@7c.
Beeswax—22@24c. S. T. F. & Co.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

CINCINNATI, O.—Demand is fair for extracted honey at 5@8c., with a good supply. Quite a number of small arrivals of nice comb honey found a ready sale during the last few weeks. Demand is fair. The close money market causes slow collections and makes itself felt on the demand of all merchandise, including honey.
Beeswax—Demand fair, at 20@23c for good to choice yellow. Supply good. C. F. M. & S.

ALBANY. N. Y.—Enquiry for honey improving and have made some good sales. Fancy white 16@17c.; No. 1 white 14@15c.; mixed, 13@14c.; No. 2 mixed, 12@13c.; fancy dark, 12@13c.; No. 1 dark, 11@12c. Extracted, white, 7½@8c.; amber, 7@7½c.; dark, 6½@7c. Beeswax slow at 26@28c. H. R. W.

BOSTON, MASS.—Fancy white. 16@18c.; No. 1 white, 15@16c. Extracted, white, 7@8c.; amber, 6½@7c. Beeswax, 25@28c. B. & R.

NEW YORK, N. Y.—Our market remains very quiet. Extracted continues to arrive freely; the market is well supplied, and the demand is light. We quote: Southern, common, 60c. per gallon; fair to choice, 65@75c. per gallon; California, 6@6½c. per lb. No new comb honey on the market as yet. Beeswax, gradually declining; 25c. for good yellow at present. H. B. & S.

KANSAS CITY, MO.—Stock very light of comb honey. No extracted on the market. Demand is good. We quote; Fancy white, 17@18c.; No. 1 white, 15@16c.; fancy amber, 14@15c.; No. 1 amber, 14c.; fancy dark, 13@14c.; No. 1 dark, 13c. Extracted, white, 7@7½c.; amber, 6½@7c.; dark, 5½c. H. & B.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white conb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & CO., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & CO., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

* * *

Have You Read the wonderful book Premium offers on page 285?

ESTABLISHED IN 1861

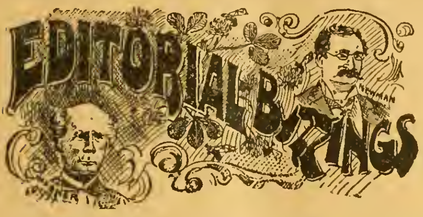
THE AMERICAN

OLDEST BEE-PAPER IN AMERICA

BEE JOURNAL

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., SEPT. 7, 1893. NO. 10.



Mr. M. E. Hastings, of New York, made us a short but pleasant call last week. He is at the World's Fair with an exhibit of specialties in bee-supplies, etc., and wlll also assist Mr. Hershiser a little in re-arranging the New York honey exhibit. Mr. Hastings reports a fair trade in supplies this season.

◆

Some Beautiful Pictures we have received from B. Taylor, of Forestville, Minn. They represent his home, shop, apiary, house-apiary, and general surroundings, which show that Friend Taylor takes delight in having everything neat and beautiful around him. The house-apiary we expect to illustrate in the BEE JOURNAL soon, accompanied with a full description.

◆

The Nebraska Bee-Keeper for September was the first to reach our desk. It contains the pictures and condensed biographical sketches of L. D. Stilson, editor of the paper, E. Whitcomb, E. Kretchmer, Mrs. J. N. Heater, G. M. Whitford, J. M. Carr, and Chas. White. Several extra pages are added, and it presents a good appearance. Bro. Stilson is a worker, and will be at the State Fair at Lincoln, Nebr., from Sept. 8th to the 15th. Better go, if you can.

Dr. C. C. Miller very agreeably surprised us by calling quite unexpectedly last week. He was on his way to attend the Seventh International (12th National) and Second World's Sunday School Conventions, in St. Louis, Mo., beginning Aug. 30th and closing Sept. 6th. The Doctor is never happier than when engaged in Sunday school work, and he may well be, for to our mind there is nothing more soul-inspiring or "happifying" than that very work. Long may he live to bless this great cause with his cheering, helpful efforts, and holy and humble life.

◆

Mr. Jas. W. Townley, of Octavia, Nebr., gave us a pleasant call recently. He was "taking in" the Fair, and thought he had "done it" pretty thoroughly. He farms and cares for his bees in the summer, and teaches school in the winter. This makes a most excellent combination, as Mr. T. has proven to his own satisfaction. In his part of the country the honey crop is taken after August first, the principal source being the heart's-ease which seldom fails to yield bountifully.

◆

The New York Honey Exhibit at the World's Fair has been referred to several times in the BEE JOURNAL, and this week, on page 309, Mr. Hershiser, who has charge of the exhibit, gives what he believes to be the facts about the exhibit, in reply to what we published on pages 200 and 201. As to whether other State exhibits show superior or inferior honey to that of New York, it is really unnecessary to say, for any one who visits the Fair can easily see for himself. New York does not claim to produce nicer honey than any other State, but just as nice, though we understand many admit that the 500 pounds of comb honey shown in the Michigan exhibit, and produced by Hon. R. L. Taylor, is the finest on exhibition.

We are very certain that our critic on page 200 did not intend to cast any reflections on the New York State exhibit, and we feel that the apparent difference in opinions must result, in a measure, at least, from the different ways of looking at things.

◆

Mr. F. J. Lye, of Delphos, Ohio, visited the Bee Journal office a short time since. He is over 70 years old, but still energetic and a great admirer of the little bee. In speaking of ridding apiaries of the pestiferous ants, he said that he succeeded splendidly with pulverized salsoda, sprinkling it wherever the ants were. He also made a strong solution of it, by using water, and then sprinkling it upon the ant nests, and also in other places infested by them. The same thing he also used to keep down the grass around the hives and in the apiary. It certainly has at least two very good recommendations—it is cheap and easily applied.

◆

Honey-Dew, as mentioned last week, is the name of a Russian drink made principally from honey, and exhibited in connection with the Indiana honey exhibit at the World's Fair. Mr. Hill, who has charge of the exhibit, has a small pyramid of pint bottles of the "Honey-Dew" in the glass exhibition case, and it makes a very attractive appearance with the neat and many-colored labels that decorate the bottles containing the drink.

Mr. Hill gave us a bottle of it as a sample, which we took home and placed in a refrigerator. When cool it is a very refreshing drink, something like Hires' root beer, though we believe it is much less "sharp" in taste.

The company, which was organized to manufacture the new honey-drink at Kendallville over a year ago, has failed, through some mismanagement. Mr. Hill believes that if the right parties would take hold of the business, a good thing financially could be made out of it, and at the same time a new demand be created for extracted honey.

A little over a year ago Mr. Hill had this to say about the drink, in his *Bee-Keepers' Guide:*

> It is a very popular drink in Russia, and is used in large quantities. It is kept in public places, and is sold about as we sell soda-water in this country. We think the new honey fresh from the flowers and hives, containing all of its flavor and odor, full strength, having lost nothing by standing and candying, would make the best drink. That used in Russia was "strained" honey, very strong, and of all kinds, but we ought to be able to furnish each kind separate.
>
> It looks as though this enterprise would use up a large quantity of honey. The drink is not intoxicating.

Of course, if the drink were in the least intoxicating we should not mention it in these columns, as we think there are already too many beverages that should never have been invented. But if it will open up a new field for the use of honey, and also furnish a safe, refreshing and healthful drink, we can see no reason why its production should not be encouraged.

◆

New Bee-Papers.—In commenting upon the suspension of publication of the *Bee-Keepers' Guide*, the *British Bee Journal* used these very truthful words, which we commend to all who may imagine they are "divinely called" to start a new bee-paper:

> Although we read year after year of new journals being started and coming to grief, it is astonishing to us that there are still found persons simple enough to think that they have merely to start a bee-paper to make it a success, and yet simpler persons to believe them. There are every year in America a number of new bee-papers started, and about as many become extinct, so that we have for a long time ceased to notice them.

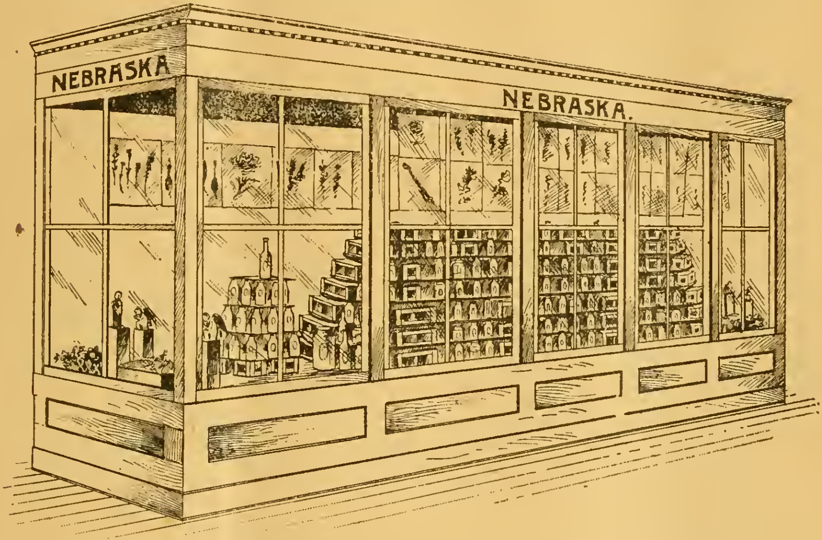
◆

Rev. E. T. Abbott began, in the *Kansas Farmer* for Aug. 16th, a series of articles covering pretty thoroughly the subject of bee-culture. He will try to answer just such questions as a beginner in the business would be likely to ask. We prophesy that Friend Abbott will give something very interesting to the readers of that paper, for he is capable of doing that very thing, as he pushes a sharp pencil.

◆

Great Britain imported honey during the month of July, 1893, to the value of about $12,000. We wonder how much the United States *ex*ported during the same month.

The Nebraska Honey Exhibit at the World's Fair is one of the principal attractions in the apiarian department, and we are more than pleased to be able to present to our readers a picture of it this week, through the kindness of Bro. Whitcomb, of Friend, Nebr., who so acceptably installed the exhibit.



The Nebraska State Honey and Wax Exhibit at the World's Fair.

Nebraska occupies a position in about the center of the row of honey cases, and immediately in front of the broad stairway leading up into the east gallery. Having been the first in selecting their position, none better was to be had.

In the arrangement of the exhibit, 65 specimens of the principal honey-producing plants of the State of Nebraska, mounted in very good shape on cards, are placed on either side of the case, and at the top over the balance of the exhibit. These cards show the botanical name, proper name, where and by whom gathered, and the date they were found in bloom. They are attracting much attention, as no other State pretends to show anything of the kind.

In each end of the case is arranged an exhibit of wax, which consists of floral, art and agricultural designs in pure wax as it came from the extractor in the pure, bright sunlight and under the "Italian skies" of Nebraska. From an artistic point of view this wax exhibit is the best in the honey department. The wax figures and flowers were made by Mrs. Whitcomb, which shows much skill, indeed, as does the basket of various kinds of luscious fruit, all made of beeswax, by Mrs. Wm. Stolley, of Grand Island, Nebr. Some of the figures and the basket of fruit are very distinctly seen at the left in the accompanying picture of the exhibit.

Between the wax exhibit, on shelving made of clear white basswood, are arranged alternately about 12 distinct samples of honey. The comb honey is in cases holding one and two pounds, each made of clear basswood, and having glass on either side so that not a pound of honey is exposed to flies, dust or air. The display, however, consists principally of extracted honey of the crop of 1892, but the small pyramid of honey seen at the left in the illustration is of this year's crop. The comb honey is fair, but rather dark, though some white extracted honey is shown, but the principal portion of the exhibit is dark, and the greater part granulated.

A few sample bottles of metheglin from the apiary of August C. Davidson, Omaha, Nebr., are also to be found in the exhibit, as well as some very fine honey-vinegar.

Though the whole exhibit is small, yet it is very well arranged, and is indeed every way creditable.

Mr. Chas. White, of Aurora, Nebr., besides having on exhibition his machine for putting sections together and putting in foundation, has one four-frame nucleus, and also one one-frame nucleus of Italian bees. He had a virgin queen sent from Nebraska, and she was mated at the Fair grounds, in all probability with a drone from the bees of the New York State exhibit. Mr. White is very proud of it, and would not accept $10 for the queen. The bees are in the window, and are viewed by many hundreds of visitors every day, being one of the "big attractions" in this department. "Buckskin Charley," as he is called in Nebraska, is always on duty, and ready to explain to interested listeners all about bees and their management. He has been looking after the exhibit in the absence of Bro. Whitcomb.

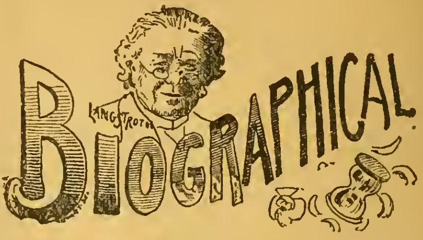
In conclusion, permit us to say that if our readers desire fuller particulars of this exhibit, they should visit the Fair and see it with their own eyes. The bee and honey department in the Agricultural Building is the greatest as well as sweetest attraction. It is a splendid means of educating the public upon the importance and extent of bee-culture in America. Many are the expressions of surprise and wonder that are uttered by the endless procession of appreciative visitors.

◆

Mr. W. P. Crossman, of Ballinger, Tex., we regret to say, has received severe injuries upon one knee, which totally disables him for further queen-rearing this season, and hence will be unable to fill any more orders this year. He desires his customers and friends to please take notice. We hope Friend C. will soon recover and be none the worse for his present misfortune.

◆

The Louisiana Hotel is the place where the North American bee-convention will be held on Oct. 11th, 12th and 13th. See the advertisement of the hotel on page 292 of this issue of the Bee Journal. Any of our readers who may be coming to the World's Fair before the convention is held, would do well to "put up" at the Louisiana Hotel. Full information about it is given on page 292.



EDWARD WHITCOMB.

There *may be* within the ranks of the honeymen — or honied men — a more jolly, good-natured, kind-hearted, and thoroughly agreeable man than is Bro. Whitcomb, of Friend, Nebr., but if there is such, we have not met him. We have, however, had the very great pleasure of meeting the subject of this sketch several times during the past few months, and in him we feel that we, as well as bee-keepers in general, have one whose friendship we all may well be proud of.

Mr. Whitcomb was born in Susquehanna county, Pa., on Oct. 24, 1843. At the age of 10 years, or in 1854, his parents moved to Lee county, Ills. At the breaking out of the late War he enlisted in Company A, 34th Illinois Infantry, and remained until the end of that awful struggle.

In 1870 he went to the progressive State of Nebraska, and settled near where the town of Friend now stands. It has been said that he first engaged in the bee-business while "soldiering" under Gen. Thomas, in Kentucky, on marching with Sherman to the Sea. He has been President of the Nebraska State Bee-Keepers' Association for the past two years, and has had charge, or has been the Superintendent, of the Nebraska apiarian exhibit at the State Fair for the past eight years.

Mr. Whitcomb received his appointment as Superintendent of the Nebraska apiarian exhibit at the World's Fair, through the urgent request of the State bee-association.

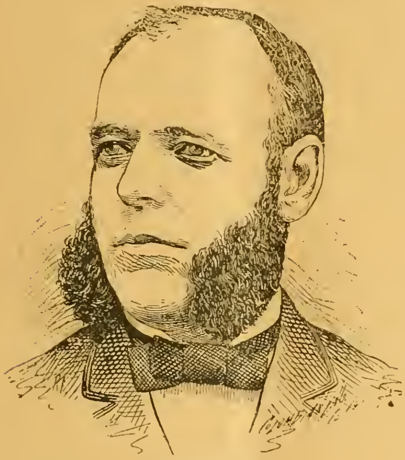
He does not run a large apiary—from 25 to 30 colonies is the limit; but it is as well kept as any in the United States, and able to show as good results.

Mr. W. is postmaster at Friend, and is also the editor and proprietor of the *Telegraph*—a bright, newsy newspaper published where he lives—which now is making its 16th year, and is the oldest paper in the county at this time.

Judging from what we have heard,

and also from what we have observed at the World's Fair, Bro. Whitcomb is a big man when it comes to honey exhibits at Fairs, as well as a *fair* man in avoirdupois. (We would guess that he tips the scales at about 200 pounds.) As to his ability to get up a honey display, we need only to refer to page 297 of this number of the Bee Journal, where will be found a picture showing the Nebraska honey case and contents at the World's Fair.

Speaking of apiarian exhibits at Fairs, we may say that perhaps the State of Nebraska comes very near leading all other single States in its excellent show of honey, wax and implements of the apiary. They have a building especially made for the purpose, which has been enlarged several times to accommodate the increasing demand for space that occurs each succeeding year. The major portion of the credit for such advance strides in apicultural things in Nebraska, is due, and is willingly conceded, to our good Bro. Whitcomb. No wonder that Nebraska bee-keepers look up to him as a leader, and a splendid promoter of their best interests !



E. WHITCOMB.

Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the Bee Journal for one year, for $1.15.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—Ed.

To Which Queen Do they Belong ?

On Aug. 1st I removed the old queen from a colony of bees and introduced a new queen. To-day I was removing some honey from the supers, and found about one dozen sections in the center of the bottom super with drone-brood in them—some hatched, and others just eating their way out. I found a queen-cell in one of them. I pulled the cap off, and out walked a queen. Now, to which queen do the drones and young queen belong—to the old queen, or to the one I introduced ? Bees are doing splendidly.
F. H. Molby.
Greenleaf, Kans., Aug. 23, 1893.

Answer.—As the change of queens was made Aug. 1st, all work previous to that time must be credited to her, and the new queen must have credit for all work of the remaining 22 days to Aug. 23rd. A queen usually hatches in 15 or 16 days from the laying of the egg, so that would make the queen-cell come in the time of the new queen, unless by some hocuspocus the bees delayed the hatching of the egg. A drone hatches out in about 24 days, so the drones hatched out, or just hatching, ought to be credited to the old queen.

How to Make Honey-Vinegar.

This being the season of year for making honey-vinegar, I would like to know a recipe for it. I have been trying to make some, but I can't get it to sour or ferment fast enough.
Kent, Ohio. L. G. Reed.

Answer.—Chas. Dadant & Son, of Hamilton, Ills., have had much experience in making vinegar out of honey, and the following is their way, as described in "Langstroth on the Honey-Bee :"

It takes from 1 to 1½ pounds of honey to make one gallon of vinegar. Two good authorities on honey-vinegar, Messrs. Muth and Bingham, advise the use of only one pound of honey with enough water, to make each gallon of vinegar. We prefer to use a little more honey, as it makes stronger vinegar, but the weaker grade is more quickly made. If the honey-water was too sweet, the fermentation would be much slower, and with difficulty change from the alcoholic, which is the first stage, into the acetic. This change of fermentation may be hurried by the addition of a little vinegar, or of what is commonly called vinegar mother.

If honey-water, from cappings, is used, a good test of its strength is to put an egg in it. The egg should float, coming up to the surface at once. If it does not rise easily, there is too little honey. As vinegar is made by the combined action of air and warmth, the barrel in which it is contained must be only partly filled, and should be kept as warm as convenient. It is best to make a hole in each head of the barrel, about four or five inches below the upper stave, to secure a current of air above the liquid. These, as well as the bunghole, should be covered with very fine wire screen, or with cloth, to stop insects.

A very prompt method consists in allowing the liquid to drip slowly from one barrel into another, as often as possible during warm weather.

As we make vinegar not only for our own use, but also to sell to our neighbors, we keep two barrels, one of vinegar already made, the other fermenting. When we draw a gallon of vinegar, we replace it with a gallon from the other barrel.

Swarming or Dividing—Golden Bees.

I now have 7 strong colonies of mostly Italian bees. One colony is not pure, but from the two strongest I took nearly 100 pounds of comb honey in sections. I started last spring with 5 colonies, one swarmed twice, and it will swarm again unless I do something to prevent it. It is running over full of bees now. Would you advise me to get a queen and divide it, or let it swarm naturally? I have some empty hives and combs that I would like to have filled if it is not too late to do it this fall.

It is very dry, and bees are not doing much but getting pollen in the mornings, but they have lots of honey in the brood-chambers.

Please advise me, through the Bee Journal, what to do, as I feel very ignorant on most things pertaining to apiculture, but I am deeply interested in it, and we do all enjoy honey so much.

Are the Italians and golden bees that are advertised now, the same?

Margaret S. Swain.

Pendleton, Ind.

Answers.—Probably the best thing you can do is to let your bees alone. It is not desirable to have new colonies formed late in the season, as a general rule, either by swarming or dividing. The fact that your hives are boiling over with bees is no proof that they have any notion of swarming. Late in the season bees often hang out in large numbers without swarming. Mere numbers will not make them swarm. Even with a heavy harvest they are not likely to swarm so late, but when, as in your case, they are gathering very little, you may be sure there will be no swarming, and, if divided, the result would be unsatisfactory.

Italians are often called "golden," and a good many different strains are claimed, some perhaps better, and some worse, than the general run.

Ripening Honey—Feeding Sour Honey

1. How can honey be ripened? 2. I have some honey that is getting old and is sour. How would it do to feed it to the bees and let them store it in the hive? 3. Would it become as nice as new honey?

Chas. S. Curry.

Venice, Fla.

Answers.—1. Some think that honey can be ripened nowhere so well as in the hive by the bees. Others think it ripens equally well in a room kept warm and well ventilated. Of course a considerable surface, in the latter case, must be left exposed for evaporation.

2. Better not feed for storing, but feed at a time when it will be all used up for rearing brood.

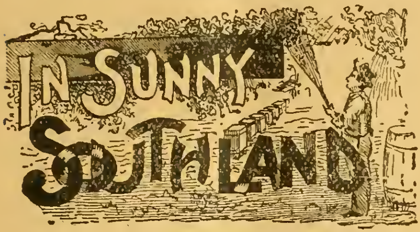
2. No.

Opening and then Sealing Cappings.

After sealing brood or larvæ from three to six days, why are the bees eating small holes in the cappings, and to every appearance feeding the larvæ, not all of it, but some of it, if as some of the best authorities claim, sufficient nourishment is furnished at the time sealed? The larvæ in cells opened present the appearance of Fig. 12, page 47 of "A B C of Bee-Culture," which would be 12 days old. The bees seal up these holes again. H. C. FINNEY.

Council Grove, Kans.

ANSWER.—That conundrum is a little too much for us; or are you trying to poke fun at us by asking a question you knew we couldn't answer? We never before heard of bees biting open the cappings of brood, and then sealing them up again. Is there no possible mistake in the case?



CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

Wanted—A Sample of Foul Brood.

I have been searching our State for a little piece of foul brood, and have failed to find it. If this meets the eye of any one in any State that has foul brood in his apiary, please cut a small piece out and place it in a little, tight paper-box—say something like a capsule box—and mail it direct to Dr. Wm. R. Howard, 509 Main St., Ft. Worth, Tex., who will pay all expenses, and for trouble. Please do this for us, as we wish to make some close microscopic examinations.

JENNIE ATCHLEY.

The Best Hive for the South.

MRS. ATCHLEY:—Which is the best hive for bees in the Southern States? I am inclined to the American frame, Simplicity hive. My intention is to run mostly for extracted honey.

R. H. JACOWAY.

Dardanelle, Ark.

Friend J., I have been vexed over the hive question more than anything else. I would like to impress upon *all* beginners, that the hive does not cut much figure in the matter, only, as I have said before, start out with a good movable-comb hive, not too large or too small, and one that you can make larger at will, and contract as you may desire. But by all means have your hives all uniform, or you will very soon regret it.

The American hive, the Simplicity hive, or the Gallup, and almost all the movable-frame hives now in use, are a success in the hands of a good apiarist. We do not need any winter hive here, such as chaff-packing, etc., but a nice, well made *movable*-comb hive is all we need in the South. Better shun all advertisements of hives that are said to give *more* honey than any other hive, as they are catch-penny advertisements, for it is the bees that produce the honey, *not* the hive. Give me a salt barrel, or log gum, that is large enough, and let me fix the furniture so that I can manipulate it, and I will get as much honey as if the bees were in a palace.

JENNIE ATCHLEY.

When to Put on Sections.

MRS. ATCHLEY:—Please tell me about what time I should put on the sections here. I write to you because you are the only one near my latitude that I know of. F. N. GARDINER.

Guthrie, O. T.

Friend G., the best time to put on sections is when the bees have just begun to gather honey from the flowers that produce your surplus. This will be indicated usually by bees being busy, and white specks of comb shown near the top-bars of the frames. Study your flowers, and always have your sections on in time to catch the harvest, but not before, as they become yellow if on the hive too long. JENNIE ATCHLEY.

Texas as a Honey State.

On page 210, Mr. L. W. Rich asks, "What do the bees of Texas gather honey from in the new parts?" Such portions of Texas are the gold-mines for the honey-bees. Thousands of flowers are in bloom from February until December, and among them horsemint, one of the best honey-plants Texas ever had, and the prairies are its home. In southwest Texas we have buffalo clover, catclaw, and other flowers too numerous to mention, and the country yet unoccupied by man is flowing with honey, as bees are plentiful and always found to be rich.

In my estimation, Texas will carry the banner as a honey State, as all that is lacking to-day is the bees, and they are fast being reared to stock our vast territory. Mark you, 10 years hence, Texas will produce more honey than any other State in the Union. Now, you may think that this is a broad assertion, but if you only knew of the many apiaries now numbering their colonies by the thousands, and rapidly on the increase, but they are saying nothing about it. Why, Mr. Rich, bees will gather more honey in Texas than they can possibly gather in Iowa. JENNIE ATCHLEY.

Another California Honey Report.

MRS. ATCHLEY :—The season here is just about at a close, as far as further extracting is concerned. The yield was only 16 tons from 135 colonies, or about 240 pounds per colony. The increase was 85, or to 220 colonies, all told. The best colony gathered about 600 pounds of surplus honey, and would have made a good record had they not been broken up to get queens from.

A. F. UNTERKIRCHER.

Redlands, Calif., Aug. 11, 1893.

Experience with a Queen in the Mails.

MRS. ATCHLEY :—I recently ordered a queen, but she was not in my post-office box; but as I left the office, the postmaster called me and showed me the queen-box, which was broken and split in two pieces, and of course empty. The postmaster said they had not seen any bees or queens. I asked to see the empty mail-sacks, and succeeded in finding one worker-bee. We concluded that our name was Dennis this time, and started to leave the office, when close to the door, where a crowd of people were standing but a moment before, I saw the queen on the floor, and I picked her up, hastened home with her in my hand, and placed her on the frames of the hive I wished to introduce her to, and I think successfully. It seems to me this is rather rough usage for a queen to survive. J. L. BOWDISH.

Oxford, Kans., Aug. 21, 1893.

Honey as Food and Medicine is just the thing so help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the BEE JOURNAL for description and prices.

QUERIES AND REPLIES

Causes of Winter Losses—How to Prevent Them.

Query 887.—1. What are the principal reasons for heavy losses of bees in a winter like the last one? 2. Can you suggest anything to insure safe wintering of bees, so that losses in wintering would be the exception instead of the rule?—A Mourner.

1. Poor food, and severe winters. 2. Good food, and a good cellar, or thorough packing will ensure success.—A. J. COOK.

1. Extreme cold and long confinement. 2. A dry cellar, with a uniform temperature of from 40° to 45°.—J. M. HAMBAUGH.

1. Want of good food. Too long confinement by reason of cold weather, and too much dampness. 2. Reverse the above conditions.—E. FRANCE.

1. I think the reasons are light stores or long-continued cold. In the cellar I only lost the light colonies. 2. Keep them in the cellar.—JAS. A. STONE.

This space is limited. It will require a long article to give any principal reason. We could suggest several methods, but space forbids.—H. D. CUTTING.

1. May be cold and long-continued confinement. 2. In cold places, keep them in a specially prepared cave, or in a cellar with fire, if too cold without fire. —C. C. MILLER.

1. Quantity and quality of stores are deficient, or the cellars are unfit to winter bees. 2. Better care and more outdoor wintering in double-walled hives.—J. H. LARRABEE.

1. Severe cold for a long time without a let up, for bees to fly, or shift on their combs. 2. Dampness and lack of ventilation. 3. Insufficient and poor food.—C. H. DIBBERN.

1. The overloading of the intestines by the use of nitrogenous food, such as bee-bread, at a time when the bees have no opportunity to take a flight for the purpose of emptying themselves. 2.

Yes, pure granulated sugar stored in combs free from other food for winter stores will fill your requirement if the bees are managed in an ordinarily reasonable way otherwise.—R. L. TAYLOR.

1. Long-continued cold weather. 2. Keep them at the right temperature in cellar. If you live in a climate where bees can fly out frequently, then put them in chaff · out-of-doors.— P. H. ELWOOD.

1. I believe the principal cause is dampness and want of ventilation. 2. Since I have given my bees plenty of ventilation at the bottom of the hive, I lose scarcely any that have sufficient winter stores.—M. MAHIN.

1. Long-continued cold weather, and a lack of proper preparation. 2. I have detailed my ideas on wintering, and the methods I use, in these columns at various times. I see no reason for making any change in these methods.—JAMES A. GREEN.

1. Long confinement and unsealed honey. 2. Keep them in a well-sheltered place where they can have a flight at every chance. The colonies that wintered best are those that had a flight when it seemed sure death for bees to venture out.—DADANT & SON.

1. Lack of the right kind of food in the right place. 2. Yes; plenty of food in the right place. Place a cake of sugar candy 1½ inches thick, and 8 inches square, directly over the cluster, about the first of January. Bees starve to death. They do not freeze.—EMERSON T. ABBOTT.

1. Lack of proper conditions. 2. If the safe wintering of bees could be taught by a rule, the "wintering problem" would no longer harass the bee-keepers. I could give my *theory*, but I am not sure it would be valuable. This space is too limited, anyhow.—EUGENE SECOR.

1. Long, cold winters are the causes of loss. When the winter is open and moderate I never lose any colonies; but when long, hard winters overtake the bees, some colonies perish. This has been my experience in many years. 2. Only that all care should be used to protect the bees as though every winter was hard alike.—G. W. DEMAREE.

The severe and long-continued cold weather. In cleaning out hives, where bees have died, foul air appears to be one factor. The weather was so severe that bees could not clean house, and the dead accumulated, closing up the entrance. We hear of bees coming through in good condition in old hives split from top to bottom. I cleaned out a hive that had contained a very large colony, and well supplied with honey. The hive was a close, well painted Langstroth, with new muslin over a Hill's device, and the cap filled with dry maple leaves. The entrance was so clogged with dead bees robbers could not enter.—MRS. L. HARRISON.

1. You mistake. The heavy losses have mostly been the past spring. In 1882 I went on record as saying that after every winter in which we had continuous cool and cold weather, we would have a heavy loss of bees, notwithstanding the pollen and all other theories that were advanced. The past winter and spring have again proven that this statement was correct.—G. M. DOOLITTLE.

1. It is difficult to say, generally, "what the principal reasons for heavy winter losses" are. So many factors enter into the problem, that each case is an idividual one. Starvation is the principal reason for winter losses in my own locality (Mass.). 2. I can suggest nothing that has not been made public in text-books and the bee-journals for years. Study them carefully, and you will get about all the light there is on the subject.—J. E. POND.

1. Our losses in Canada during the past winter were light. A light honey-flow, or a honey-flow which breaks off early, I believe usually precedes heavy winter losses. 2. I have great faith in the statement that bees will winter with reasonable certainty if they get sufficient proper stores, have a good queen, and are kept in proper condition during winter. The rules of health and life are as fixed with the bee as any other animal. —R. F. HOLTERMANN.

1. I think there is no good reason. 2. Much unnecessary ado is made about the "wintering problem." Like all other living things, our bees need warmth and food. Preparations for wintering should be made early in the fall—not later than September. Each colony should have six or seven frames of well-ripened honey. If wintered on the summer stands, they should be packed in chaff hives with at least 2 or 3 inches of dry chaff in the hollow walls at the sides, ends and bottom. Spread a new cloth of duck, or something of that kind, over the frames; but first lay three or four corn-cobs or sticks across the frames to hold the cloth up, and give the bees a passage-way over the frames. On top of the cloth put about 6 inches of chaff, and cover it so that it will not get wet.

Close the entrance to about 4 inches. If cellar-wintering is preferred, prepare as stated above, and when the weather becomes cold, place them in the cellar and cover with a board, which should be raised three thirty-seconds of an inch, and leave the entrance wide open.—MRS. J. N HEATER.

1. In answering this query, I answer for this locality (Wis.). Other sections might have had conditions different from ours. But little honey was gathered in this county, and that of poor quality. In the summer of 1892, bees swarmed but little, and a large per cent. of colonies had old queens at the commencement of winter. The winter commenced early, and was long and severe. The spring was the worst for bees of any that I have seen in my experience. Many colonies that were in fair condition when taken from the cellar died in April and May. 2. Probably if Mourner would take his bees to California, he would be more successful in wintering ; and even here, bees fed plenty of granulated sugar stores for wintering, and fed early, have wintered fairly well.—S. I. FREEBORN.

1. There are a great many things about the wintering problem that seem hardly understandable. But a long, windy, cold winter seems to be the worst enemy of out-door wintering. The past winter has been a fatal one in some sections where the bees were thought to be in good condition, and in other localities where little or no attention was given them they have come through in good condition. This is one of the things we cannot exactly understand. 2. But the important thing is to have your colonies just right—not *too* strong, with plenty of good honey stores, and the hives warm. If in the cellar, keep them warm and dry, and you can do little or no more. A certain amount, at least a third, of loss, must be expected.—WILL M. BARNUM.

1. I don't know. 2. Send me your bees in the fall in good condition, and I will insure you the same number in tip-top condition the next spring, and charge you only 50 cents per colony to unload and put on board the cars. If you have not a carload, get your neighbors to go in with you. Who will venture? I think it will beat letting them freeze to death, don't you? I can care for several thousand colonies, and would like to see this thing tried. I will unload the bees, take good care of them all winter, and load them in the spring for 50 cents per colony, and the freight in carload lots ought not to be more than $1.00 per colony, as 300 or 400 single story hives will go into a large car, and be taken off by the owners with but little more trouble than to put them into and out of the cellar. I have considerable experience in shipping bees in carload lots. I want to go to the bee-convention in Chicago, in October, and if there is a bee-keeper there that wishes to try the scheme, I will make a contract with him.—MRS. JENNIE ATCHLEY.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported	$18 90
Austin Reynolds, Cataract, Wis	50
Wm. C. Wolcott, Eldorado, Wis	1 00
R. E. L. Peck, Rockwall, Tex	25
Total	$20 65

Convention Notices.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land. FRANK BENTON, Sec.
Washington, D. C.

NEBRASKA.—The yearly meeting of the Nebraska State Bee-Keepers' Association will be held at Lincoln, Neb., on Wednesday and Thursday evenings, Sept. 13th and 14th, 1893. This will be held in connection with our State Fair, and we would be pleased to have Eastern visitors meet with us. One-way excursion rates will be given on all railroads from Chicago to Lincoln, at that time. Let every bee-keeper call and get acquinted with the Nebraska honey-producers, whose headquarters are always open.
York, Nebr. L. D. STILSON, Sec.

Have You Read page 293 yet ?

CONTRIBUTIONS

Bees Once Marking a Location, It Should Not be Changed.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

On page 820 of the AMERICAN BEE JOURNAL for June 29th, 1893, I find, in reply to a question asked by J. M. Davis, regarding how the brood was to be supplied with water when working the Langdon non-swarming device, these words: "Close the entrance of the front, but have a hole bored in the back of the hive; which hole will be easily plugged when required. In that way the working force will still go to the other hive, while young bees will be able to care for the brood."

Like others, I have been wondering if the brood must not suffer when working hives on the Langdon plan, on account of all the field-bees being shut from the brood of one of the hives *all* of the time, though each hive has these bees alternately; suffering not only on account of water, but from lack of proper care, and in a cold spell, from the requisite degree of heat required for the best advancement of the interior of the hive from which the bees were excluded; but I object to having these matters regulated as proposed above.

Any one who has watched young bees on their first flight knows that as they go out at the entrance they turn around, heading toward the hive, viewing the outside, then slowly rise on the wing, describing circles, which enlarge with each one that is farther from the hive, till lost from sight. In this way the exact location of their *home, or the entrance or doorway to it*, is marked, so that when they return they know just where to alight. Now move that doorway three inches from where it was, while they are gone, and you will see that they are are bothered to a certain extent, and will show it by hovering around for some time before alighting. Move it one foot to the right or left, and it will take them from five to ten minutes to find it. Move it ten feet, and they will hardly find it at all, unless their hive be the only one in the near vicinity.

After going from and to the hive several times, their exact location becomes more and more fixed, so that a bee which has been going to and fro from a given point for a week will drop at that point, or within an inch or two of it, every time, and if the door has been put in some other part of the hive while she was gone, a confusion which is almost painful is the result. If I am right, Mr Langdon overcomes this with his non-swarming device by the bees traveling along on foot to the entrance of the other hive, being led there by the smell and homelike sound coming from the same. But our "Montreal Subscriber" proposes to allow the young bees to go out at the rear of the hive, through a hole, for a week or so, then plug the hole so as to shut this doorway up, thus causing not only the confusion spoken of above, but the loss of all of the bees which have thoroughly marked that hole as an entrance to the hive.

But I think I hear him saying that he does not propose to plug the hole when the bees are flying, but do it at night when the bees are all in the hive. If such are his thoughts, or those of any one who reads this, I would reply that after the entrance to the hive is once thoroughly marked by a bee, that bee never marks its location again except in cases of swarming, long confinement to the hive, or something that so disturbs the colony as to cause each individual bee to mistrust that something has gone wrong, like their tree home in the woods being blown over, or some great shake-up, so as to throw them out of their normal condition. Hence, as the colony is not thrown out of a normal condition when such a hole is plugged up, our bee goes out where the light is seen, leaves the alighting-board in a straight line, gathers its load of honey and returns to the old spot marked, perhaps weeks before, only to be lost unless the new entrance is near enough to entice it there. This was one of the things I had to learn when I first began to keep bees, and it is apparently about the hardest thing to teach the ordinary individual.

The older readers of the BEE JOURNAL will remember how E. Gallup worked his twin hives, allowing the bees to occupy one part of the hive during the spring till that became filled with bees and brood, when a slide was removed from the partition separating the two, the other part filled with empty combs and the whole turned half way around, when he had the novel occurence of all the bees going out at one entrance to the hive, while all the returning bees came in at the other. As the young bees went out and marked their location, this phenomenon gradually disappeared, till after awhile it was not noticeable at all. In the fall, when the bees were all put back into one hive, the slide in the partition was left out till the bees were prepared for winter, when they would mark their location anew, should a flight in winter occur.

The entrance in the rear of the Langstroth hive as used years ago, to be open during the summer for ventilation and closed in the fall when robbers were plenty, was one of the objections I had to that hive. Upon closing this rear entrance, the bees on their first flight afterward, would collect in large numbers about it and perish.

In this, as in all other matters pertaining to our beloved pursuit, we should always conform to those unchangeable laws which govern the "little busy bee," if we would reap the best results from them.

Borodino, N. Y.

Appoint the Delegates—Apply at Once for a Commission.

Written for the American Bee Journal

BY FRANK BENTON.

In view of the international character which the convention of the North American Bee-Keepers' Association to be held in Chicago Oct. 11th, 12th and 13th, will have, it is especially desirable that all the States and Territories of the Union be well represented.

From several States and Territories—more particularly from some of those located in the South, the far West, and on the Pacific coast—the Secretary has no word that representatives have been appointed. He would respectfully call the attention of the executive officers of apiarian societies to this matter, and suggest, wherever possible, immediate action. And even in case the funds will not permit them to pay the expenses of delegates, there may be able bee-keepers who intend to visit Chicago at this time, and who would be glad to represent officially their respective societies, or the apiarian interests of their respective States. And the undersigned would further suggest to such parties an immediate application to the proper officers for suitable authorization. Should it not be possible to pay all of the necessary expenses of such delegates, then 10, 25, or 50 per cent. of the sum, or the actual railway fare, might be offered.

Doubtless those in charge of State appropriations may in some cases be able to commission expert bee-keepers to proceed to Chicago and report on apiculture to their State authorities, and these representatives might also be named by the apiarian societies of which they are members as official delegates to the meeting of the North American.

There can be neither harm nor humiliation in any one's asking for such an appointment, and unless bee-keepers themselves make the move, and urge this recognition of their industry, it will not receive it. Appropriations have been made—in many instances very liberal ones—to bring about a representation of the agricultural interests of the various States at the World's Fair, and money is constantly being expended in other ways looking to the development of these interests, and there is no reason why apiculture—one of the most neglected of these interests—should not receive its due proportion of the benefits which in most instances now go wholly to other better established branches of rural economy.

The Secretary of the Society will cheerfully endorse applications of this nature from any with whom he is acquainted, either personally or by reputation, or who present proper certificates from such. FRANK BENTON,

Sec. North American B.-K.'s Ass'n.

Apiarist U. S. Dept. of Agriculture.

Washington, D. C.

Cause and Cures of Foul Brood More Fully Explained.

Written for the American Bee Journal

BY WM. M'EVOY.

When foul brood originated in my ariary in 1875, I was the only bee-keeper in my locality, and had been for eleven years before; so that my bees could not, and did not, get the disease from any other bee-yard.

In April of that year one of my colonies swarmed out, and about two-thirds of its bees got into another colony before I got the hive closed. I then secured the queen and the bees that were clustered on the outside of the hive (which was only about one-third of the bees), and returned them to their own hive. Then about sundown, when the bees had settled for the day, I examined this colony and found a small cluster of bees crowded in the center of the brood-nest, and from the sudden loss of so many bees, much of the brood was uncovered. I closed the entrance up smaller, and let them alone for awhile. Then when I examined them again, I found the uncovered and uncared-for brood a rotten mass.

The next time I examined this colony, warm weather had set in, and the decaying brood had gone from bad to worse, and was in a horrid state of decomposition. I then exchanged all of its combs with my strongest colonies.

Some days after that I again examined that colony (expecting to find it in good condition from the booming I had given it with sound brood from other colonies), and was greatly astonished to find it worse than ever. As it was then in the clover season, I cut all the combs out of every frame except about two inches of sealed honey along the top-bars, thinking that everything would be all right when the new combs would be built out. I was again sadly disappointed by finding the brood in a rotten state in the new combs.

I then examined the colonies I exchanged combs with, and found them all very bad. But as I had never seen any foul brood before, and had been led astray by the writings of other men, I could not at that time think it was foul brood, or that foul brood could originate in an apiary from the rotting of uncared-for brood.

I then wrote several bee-keepers, telling them that I had a kind of dead brood in my hives that was brown, rotten matter that would stretch nearly two inches long when pulled out of the cells. Every letter that I got in answer to mine, said that it was foul brood, and that I must burn up every hive with bees that had any of that plague. I had some very bitter experience then, before I downed that terrible disease. I had some 60 colonies of bees at the time, and foul brood had got into many of them.

The summer of 1875 was a good honey season, but I got very little honey on account of my apiary getting into a bad state with foul brood. I felt pretty "blue" over the fate of my apiary, which I had thought so much of, and often felt very much discouraged when many things that I would try would only end in failures. I struck a cure at last, and downed the disease in several ways, but they were all the same in principle. I found that what would cure in some cases would be a complete failure in others. I will here give some of my "hits" and "misses," but not all, or this article would be far too long.

SOME "HITS" AND "MISSES" WITH FOUL BROOD.

I took the brood out of the diseased hives and gave them sets of nice combs, and then watched them. I found that of no use in any case.

I then went in for putting in about five cull combs that were sound, and leaving them in the brood-chamber for four days, and extracting from them each evening, and then removing them for another set of clean combs, which I left in to be extracted from when ready. *That was a success in every case*, but it meant considerable work. As I had to melt up the combs that were used the first four days, my combs were not going to hold out, so I took out the diseased combs, and let the bees build new combs in many colonies. In some of these it was a successful cure, and in others *it was a complete failure*, although they were all done at the same time. The honey-flow was good at the time, and the bees made combs very fast, and soon had larvæ in them. The colonies that were not bad when I took the diseased combs from them, were the ones that it failed on.

I then let all build combs for four days, and then took them away, and let the bees build new combs the second time; *in every case this made a complete cure.*

Before I got nearly through, the honey season closed, and then I had a very trying time, the weather being very warm, and no honey coming in, the bees would rob at a colony as soon as I opened it. I had to put all work off until evenings then, so as not to get the foul-broody colonies robbed out by the good ones and ruin them.

I opened one hive very early one morning, expecting to get through before the robber bees would find me out, but I kept it open too long, and the bees from one colony made a terrible raid on this foul colony. I shook some flour on the bees that were robbing at the foul-broody colony, and saw the white backs going into one of my best colonies. I examined that sound colony that same evening, that had been robbing so in the morning, and I never saw a sounder colony; then I examined it again in one week, and found it badly diseased with foul brood, which they got by robbing at a foul colony that I unfortunately kept open too long one morning. After that I did all my work in the evenings, so as to run no risk, and give the bees plenty of time to settle down nicely before morning.

As there was no honey coming in then, I took out the foul-broody combs and put about five empty combs in their place, and fed sugar syrup in the evenings, which the bees took down well. I extracted the sugar syrup the second and third evenings, before I fed the bees, and then took the combs out the fourth evening, and gave another set of combs, which I extracted from the second evening after I put this second set of combs in. I then left in this second set of combs for good, and fed up on them with sugar syrup. That also made a complete cure in every case.

In the fall of that year, when preparing my bees for winter, I found some foul-broody colonies among those that I never did anything with, as they seemed all right in the summer. I felt very much discouraged then, as I had done a lot of work, and thought all was right. I had then to do a good deal of thinking again to knock foul brood out of my bee-yard so late in the year, with the nights so cold. I then thought if I could get sealed combs from the sound colonies, and remove the combs out of the brood-chambers of the foul-broody colonies, and give them the sealed combs, that I could cure them late in the fall, as the bees could not put the foul honey they took from the diseased combs, into the sealed combs that I would give them.

I could not find any sealed combs like I wanted, and the weather was too cold for the bees to carry down the feed from the top of the hives; I then fixed up bottom feeders the exact size of the hives; they were shallow, bottomless boxes, with sticks across near the bottom to set milk pans on. The tops of the tin pans were level with the tops of the shallow boxes when placed in them. In the evenings I filled the pans with warm sugar syrup, then put plenty of straw in them, and then put them under the hives. The feed being warm, and only ⅜ of an inch from the bottom of the frames, the bees rushed into the pans, and soon sealed many combs.

I then took the combs out of the brood-chambers of the foul-broody colonies, and gave the sealed combs from the sound colonies that I fed for the purpose. I did that about the last of October, and where the combs *were all sealed* it made a complete cure.

I did not get all the combs sealed, on account of the weather setting in too cold. I put in the foul colonies some combs that were not all sealed, and some of the combs were empty near the bottom of the frames. In the most of the colonies fixed this way, it was a failure, as they had a chance to start brood. They did it too soon, and it went foul. I expected that, and watched for it.

After that we had some fine fall weather. I then got a good comb here and there from the sound colonies, cut the empty comb off the bottom of these combs, and moved the bottom of the frames up to the sealed honey from where I had cut the empty comb off; *by doing that, I had sealed stores without any empty combs.*

I then made a few cheap hives to suit these shortened frames of sealed stores, and then put the bees in these from the colonies I failed on; *that made a perfect cure, as it was all sealed honey.* The bees having no place to put the diseased honey which they took from the foul combs, they had to keep it until they consumed it, and that ended foul brood in my apiary.

After that, when comb foundation came into use, and I was curing other bee-yards of foul brood, I made some "hits" and "misses" with it, in curing foul-broody colonies. Sometimes I made perfect cures by taking all the combs out of the foul-broody colonies in the honey season, and putting in full sheets of comb foundation. While that worked all right in several cases, it was a complete failure in others, where I did just the same. I found that everything depended upon circumstances, to make cures that way. If the foundation had a thick base, with very little cell marks on it, and the honey coming slowly, and the colonies not too bad with foul brood, it was a cure in most cases. But where the foundation was well made, with good, high-walled cells, and a good honey-flow on, and the colonies badly affected with foul brood, it was a complete failure; because the foundation was worked out soon enough for the bees to store part of the deadly stores in.

I then gave comb foundation starters for four days, so that the bees could have time to work them out and store the diseased honey in them. Then in the evening of the fourth day I took them out and gave full sheets of comb foundation; this made a perfect cure in every case.

SEVERAL FOUL BROOD CHALLENGES.

In the AMERICAN BEE JOURNAL of July 13th, page 54, Mr. Randolph Graden says that my method of curing foul brood was a failure with him, and he warns bee-keepers not to be misled by me. I will now appoint Mr. Martin Emigh, of Holbrook, Ont., the Treasurer of the Ontario Bee-Keepers' Association, to hold the stakes, and I now ask Mr. Randolph Graden to back his opinion by sending $100 to Mr. Emigh to hold, and I will hand him another $100 to hold until we test my methods of curing foul brood. I want Mr. Graden to send to Mr. Gemmill, of Stratford, Ont., the President of the Ontario Bee-Keepers' Association, one of the worst cases of foul brood that he can find, and have my methods of curing that disease tested. If I win, Father Langstroth is to get half of the money, and if Mr. Graden wins, he is also to send half of the money to Mr. Langstroth.

I think that Mr. Muth doesn't believe that I can cure foul brood, or that my methods will cure the real, virulent foul brood. I would like a test case made of some of his sort of foul brood. If he will send one of the worst cases he can get to Mr. F. A. Gemmill, of Stratford, I will put up $150 or $300, that I can get him to cure it; the winner to send $50 to Mr. Langstroth.

In the American Bee Journal for some time back, I have read several letters from bee-keepers, going for me on this foul-brood question. I have not the time to answer them all just now, but must tell them that I have handled, cured and got cured in the last 17 years, more foul brood colonies, than any other 200 bee-keepers in the world put together.

NOT SCALDING FOUL-BROODY HIVES.

Some of these men are making a big fuss because I don't have the empty hives scalded. I never in all the localities that I have visited, in the Province of Ontario, had an empty hive scalded, except by two men; one of these men did so on his own account, and the other did it at the bidding of another man. I have had hundreds of foul-broody colonies cured in the same old hives, and will defy any man to get any of these men that I cured foul brood for, to say that the empty hive did him any harm in any way. Empty hives never, no, never, gave the disease!

SCOFFING AT SO-CALLED SCIENCE.

In the American Bee Journal of July 20th, I see that Mr. W. Z. Hutchinson doesn't agree with me on some points; but when he says that I scoff at science, he puts that *rather strong*.

I scoffed at a so-called scientist some years ago when he reported that the bee-keepers made the comb honey, and passed it off for bees' honey.

I scoffed at the opinions held by the so-called scientists on the spraying of fruit-trees with Paris green while in bloom, and I pushed their opinions to the wall, and named a committee for Parliament, to get an Act passed fixing the proper time to do such work.

I scoffed at the science that told us that bees could make honey out of sugar. I knew if that sort of science got a-going in full blast, that it would ruin the honey-business in a short time.

I scoffed at the science that told us that foul-broody colonies could be cured of that disease by drugs, which has been a complete failure everywhere in Ontario that it was tried.

I scoff at the science that teaches that colonies kept full of rotten brood won't sooner or later end in foul brood.

Woodburn, Ont., Canada.

The New York State Honey Exhibit at the World's Fair.

Written for the American Bee Journal

BY OREL L. HERSHISER.

I wish to relieve the editor of any responsibility concerning the facts and figures which form the basis of the editorial on the New York State apiarian exhibit on page 137, and I take pleasure in hereby acknowledging that I was the source of his information.

On pages 200 and 201, the editor has gone through the painful operation of being "straightened out" (?). This was not, however, a case where the "crooked was made straight," but exactly the opposite.

It is well known that the author of the letter on pages 200 and 201, above referred to is noted for his jocularity, but lest some of the readers of the American Bee Journal might take his statements seriously, I beg to make a few statements of facts.

You need not "cut the figures in two" concerning the amount of honey we have on exhibition. I made the statement to the editor that we had *about* 5,000 pounds of comb honey and *about* 3,000 pounds of extracted honey on exhibition. I made no attempt at absolute accuracy, and he did not so publish it, but said "about" so and so. I did not weigh, have not weighed, and *will not* weigh the exhibits, and to avoid the appearance of wilful misrepresentation, I have used the term "about." It is my opinion, however, that there is a trifle less than 3,000 pounds of extracted honey, and a trifle more than 5,000 pounds of comb honey in our exhibit. We purchased enough glass to put up 3,000 pounds of last year's extracted honey. We have given some away, suffered some loss from breakage, and some from thieves, thus reducing the original amount of our extracted honey exhibit.

We have on exhibition 1,000 (and I think a few over) cases containing comb honey, which, if full, would contain something over 12,000 pounds. The cases are not all full—in fact, not half of them are full—but to the best of my calculation we have, and have had, about 5,000 pounds of comb honey on exhibition, with the chances of its being more rather than less than that amount.

You are right, Mr. Editor, when you say, "This enormous exhibit of beautiful honey occupies 3½ times the space taken up by any other State or foreign exhibit." (This statement was made before the Illinois exhibit was here, and before we knew how much space they would occupy.)

We have two cases each 25 feet long, two cases each 10 feet long, and one case 17 feet and 4 inches long, actual inside measurement. The aggregate length of our exhibition space is, therefore, 87 feet and 4 inches. The outside measurement would be something over 89 feet. The last-mentioned case is used for the exhibition of bees, and the average width of this case is a trifle wider than the other exhibition cases. The two 10-foot cases, and the case in which bees are exhibited, are against the wall. As no other State or country had, at the time in question, occupied more than one 25-foot case, the statement that "New York occupied 3½ times the space occupied by any other State or foreign exhibit" was correct. We cannot avoid the conclusion that the statement made on page 200, to the effect that our exhibit "occupies *less* than 2½ times the space occupied by other exhibits," is either intended for a joke, or else evidence that the writer's early education in the rudiments of arithmetic is becoming impaired.

The statement in the editorial, that "New York had on exhibition more than ten times as much comb honey of the finest quality, as any other State or foreign exhibit," was also correct when published. (Illinois, as before stated, was not at that time here with her exhibit, and some new honey has since been added to other State exhibits.)

Regarding the number of bee-keepers represented in the New York honey exhibit, I may say that at the time when we began preparations for our exhibit, nearly all bee-keepers had disposed of their fine honey. Many of them wished to make exhibits of the present season's honey, if space could be reserved for them. Not knowing as to whether the rules regarding our space would be strictly enforced, I volunteered, and took the liberty, to make entries for 100 pounds of comb and 50 pounds of extracted honey for all bee-keepers who desired to make exhibits this year, with the understanding that they would fill the space if they secured a good crop of honey fit to exhibit. We had enough honey so that each of these applicants could be represented by the proper amount in order to reserve the space. A few of these had no honey here, some only comb or extracted, and a few both comb and extracted. The observation, on page 201, to the effect that "the following New York bee-keepers each *applied for space* to be represented," etc., is correct.

The comb honey exhibit of actually over 2,200 pounds in the 25 foot case, as your critic observes, was *nearly* "all purchased of one bee-keeper." There are also a few other exhibits in this case. It is a fine lot, and it would require volumes of exclamation points to indicate all the expressions of genuine admiration it has received by visitors who pause to gaze upon the beautiful sight. Mr. Fargo, of Batavia, N. Y., who produced this fine crop of honey, would blush with modest pride could he but hear some of these expressions of wonder and amazement. No bee-keeper need ever be ashamed of such a crop of honey. It needed no extra preparation for exhibition.

Yes, we did purchase all of last year's honey in our exhibit, and have paid for it, and as a consequence our bee-keepers are not out of the use of their property for a year. Is it not quite as honorable for the State to bear the burden in this matter, as to have the bee-keeper loan the honey to the State? We are gratified to have it known that the Empire State is looking carefully after the interests of her citizens. When the honey is sold, the proceeds go to the State. Nearly all the new honey exhibits are loaned, and when sold the proceeds will be sent to the owners. There is no injustice in this, as the new exhibits will be out of the owners' hands but a short time.

In answer to the third paragraph on page 201, I beg to state that New York comb honey is just as white as that from Ohio or Ontario. On the average, our sections may not be quite so perfectly filled against the wood as is the case in the Ohio and Ontario exhibits, but we would have no difficulty in selecting from our exhibit as many, or more, perfectly filled sections as may be found in those exhibits. The correspondent states on page 201 that his *recollection* is that neither Ontario nor Ohio has a section of honey on exhibition that is not better and more perfectly filled at the sides than is the best section in the New York exhibit. The writer referred to has seen these exhibits repeatedly, and I am satisfied he could not persuade even the most superficial observer that such was the case. The statement is probably meant for another joke. If not, we would naturally be led to attribute the statement to loss of memory or dimness of sight.

New York's exhibit contains many sections that are quite perfectly filled at the sides, and we have placed them *right side up*. The wood on the sides of the case does not cover up any imperfections that may exist. If a section is placed in the section-case in such a manner that the top and bottom as it was made in the hive becomes the sides in the case, it frequently happens that every imperfection is hidden by the wood of the case. There is nothing illegitimate about this manner of putting honey up for exhibition, but it is always noticed by the careful observer. However, let the public judge of the merits of the exhibits. I wish to state that the intimation in the *Nebraska Bee-Keeper*, that the honey in the New York State exhibit was gathered and produced in any other State than New York, and by any other than New York bees and bee-keepers, is without foundation, and absolutely false.

I do not wish to cast any unkind reflections on any exhibit, and have made these statements solely for the purpose of righting the wrong impressions that may have existed on account of the article on pages 200 and 201. Ohio has, in truth, an excellent exhibit. It is composed of fine honey, and the sections are filled out against the wood. The cappings are white and even, and the apiarist, Mr. Boyer, of Ainger, Ohio, who produced the most of it, may well feel gratified with his achievement as a producer of fine honey. The extracted honey in the exhibit is also excellent, and the whole is very tastefully arranged.

The same may be said of the exhibits of Ontario. Canada is noted for her fine honey displays, and we of the United States would have been disappointed to have seen anything but an exceedingly good show from our brothers across the line.

The Michigan exhibit is not yet complete, but is now in a process of rapid evolution. Judging from our former association with Bro. Cutting in Fair exhibitions, we are satisfied that visitors will remember Michigan's honey exhibit as one composed of fine comb and extracted honey artistically arranged.

Iowa's exhibit has developed wonderfully under the hand of Bro. Kretchmer during the past week. It is not yet complete, but it wlll be before long, and I tell you it will be a "beaut."

I understand the honey crop in Nebraska has been nearly a failure this year, but with the means and honey at hand they have made a fine exhibit.

California's exhibit is not complete. There seems to be no one in charge. It contains a little fine-looking honey, but is far from complete, and seems to suffer the absence of a presiding genius.

Indiana now has a tastefully arranged exhibit. It is unique in that it contains an exhibit of a kind of soft drink called "honey-dew." I have sampled it, by the courtesy of Bro. Hill. It is delicious, and if bee-keepers would encourage its manufacture and use, it would open a new avenue for honey.

Brothers Hambaugh and Stone are rapidly getting the Illinois exhibit in place. It will be fine and imposing when complete.

All the honey exhibits are excellent, and a credit to those who have undertaken to install them.

Chicago, Ills., Aug. 22, 1893.

[For editorial comments upon the foregoing, see page 295 of this number of the BEE JOURNAL.—ED.]

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

OUR
LETTER BOX
REPORTS PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Not a Bad Yield of Honey.

I have taken 2,500 pounds of fine white clover honey from 45 colonies this year.

H. P. Faucett.

Dilworthtown, Pa., Aug. 22, 1893.

Bees Did Very Well.

I have 5 colonies of bees, and they did very well this season. My best gave me over 200 pounds of nice honey.

(Rev.) H. H. Flick.

Lairdsville, Pa., Aug. 21, 1893.

The Season in Louisiana.

Owing to the cold and late spring, coupled with excessive rains during the summer, my bees have not gathered surplus honey, excepting lately. I expect to extract next week. The lateness of the honey-flow is due, I suppose, to the fact that my bees have swarmed so much, having over doubled the number of colonies this season.

P. E. Couvillon.

Carencro, La., Aug. 21, 1893.

A Lady's Experience with Bees.

Last spring I bought 6 colonies of bees and put them on my ranch on an island in view from Tacoma. They only gave me one new swarm this year, as the season was so late, but I had one case full of sections, and the honey was delicious. I had many beautiful flowers, one entire bed of mignonette, and the fragrance of the honey was very pronounced. I expect three cases more of sections, but only partially filled with honey, as the sweet clover (white) gave out, and the dry season came on.

Mrs. Wm. Dunn.

Tacoma, Wash., Aug. 28, 1893.

Light Honey Crop and Dark Prospects.

The honey crop is light in this vicinity. Cold, wet weather in April and May prevented bees breeding much, so they were not ready for the honey-flow when it came. We have a little honey of very fine quality. Bees swarmed freely, and we have a fair increase, but the prospect for a crop from clover is very poor for next year, as dry, hot weather has almost completely killed the clover plants. There is no prospect for rain and the outlook is gloomy for bee-keepers. There is a light flow of honey now, but I don't know what it comes from, it may be from buckwheat, although I don't know of any in reach of my bees.

Sam Wilson's honey predictions have been verified nearly to the letter in this vicinity, for the last three years. Come again, Sam, next spring, Coon Rapids to the contrary notwithstanding.

Green R. Shirer.

Greene, Iowa, Aug. 27, 1893.

A Swarm with Five Queens.

It has not been a very good season here. I got some honey, but it is a kind of a mixed lot of dark and light honey in the same section. I had a first swarm come off in July, which clustered on a peach tree limb. They divided into five bunches. I lighted a smoker, so I could move them around in order to find the queens. I found five queens. There was a queen in each bunch of bees. I pinched the heads off of four of them, and gave them a nice, clean new hive, and they are doing nicely.

C. V. Mann.

Riverton, Ills., Aug. 28, 1893.

Heavy Flow of Honey-Dew.

We have had a fair crop of honey this season, but there was a heavy flow of honey-dew before the middle of July, which mixed in and nearly ruined a good deal of nice honey. I have never before had honey-dew so early. It is very dark and muddy-looking, but of good flavor for honey-dew. It appears like some we had four years ago, when it came the last week in August. Bees wintered well on that, and I think they will on this. Rainy weather hurt the honey-flow of white clover about two weeks this year.

J. L. Hubbard.

Walpole, N. H., Aug. 22, 1893.

Season in Tennessee.

We have had an extra-good honey-flow this season. It continued from the middle of April until the middle of July. The sourwood flow was also excellent. Bees did not get the full benefit of the early honey on account of bad weather and weakness of colonies. I have read a great deal on swarming. Bees will swarm sometimes, anyhow, no difference how they are treated; at least it seems so with me. I have had some trouble along this line in the swarming season, when I wanted a nice lot of sections finished up. I started in the spring with 22 colonies, and with good management and a good honey-flow I increased to 31, and got a fair yield of honey. The honey prophet hit it here.

A. C. Babb.

Greenville, Tenn., Aug. 17, 1893.

Read our great offers on page 293.

North American Convention.—We have received the following announcement from Secretary Benton:

COLUMBIAN MEETING OF THE BEE-KEEPERS OF NORTH AMERICA.

The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills.

PLACE OF MEETING.

A hall for the use of the Convention has been secured in the "Louisiana Hotel," at the corner of 71st street and Avenue B, only a few minutes walk from the south entrance to the World's Columbian Exposition. This hall is large, well-lighted, and in a quiet place.

HOTEL ACCOMMODATIONS.

The "Louisiana Hotel" itself will furnish comfortable accommodations to members at very moderate prices. For a small room two persons pay daily 75 cents each. Larger rooms occupied by two, at $1.00 per person. Four persons occupying a room having two beds will pay 50 cents each. Meals can be obtained in the hotel at reasonable rates, or at numerous restaurants in the vicinity. It is best to engage rooms by letter beforehand.

The proprietors of the "Louisiana Hotel" give us the use of the hall free, expecting that all the members, so far as possible, will take rooms with them, and as the prices are moderate, and rooms are neat and convenient, it is but just for all who can well arrange to stop there to do so. For this purpose, address, Manager "Louisiana Hotel," corner 71st Street and Avenue B, Chicago, Ills., stating what priced room is wanted.

RAILWAY TICKETS AND BAGGAGE.

Most of the railways ticket to the Exposition Depot, near which the "Louisiana Hotel" is located, and baggage should be checked to that station, thus avoiding extra charges, as it is about seven miles from the city stations to the World's Fair Grounds. Information as to rates of travel, the time tickets are good, etc., can be obtained of all local ticket agents. From many points—especially from cities having numerous competing lines—excursions will be starting which will permit those who can take advantage of them to go and return at the usual rate for one fare, if not less than that.

NOTICE OF ATTENDANCE OR OF PRESENTATION OF ESSAYS.

The Secretary is desirous of obtaining, as early as possible, the names of all who contemplate being present. Kindly notify him by card or letter. Also any who may wish to present essays, the titles of which have not yet been handed in, are requested to send to the Secretary at as early a date as possible the exact title, and a very brief abstract of the article, which will enable him to assign the topic its proper place in the programme. FRANK BENTON,
Sec. North American B.-K.'s Association.
U. S. Dept. of Agricuture,
Washington, D. C.

It is to be hoped that all bee-keepers will arrange to attend this great convention. If all who fully intend to be there will let us know in advance, we will publish a list of their names. It will be interesting to know beforehand whom we may expect to see.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Sept. 13, 14.—Nebraska State, at Lincoln, Neb.
L. D. Stilson, Sec., York, Neb.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.......Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

☞ The Reliable Incubator and Brooder Co., of Quincy, Ills., have a very fine exhibit in one of the live stock buildings at the World's Fair, and for the last few days their space has been crowded with curious and interested people. The first hatch from their machine on exhibition there has proven a wonderful success. Two hundred eggs were placed in their machine of that capacity, and from it came 186 chicks. This is more than has been hatched by all the other incubators put together, and the Reliable people are rejoicing in their great victory. If they do not receive first honors, it will not be because of a lack of merit in hatching qualities. Their incubator and brooder combined is the admiration of all poultry men. Not only is their machine first-class, but they are justly entitled to the name they bear—reliable and responsible, and worthy of confidence and patronage.

Have You Read the wonderful book Premium offers on page 293?

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, at its last meeting, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

* * *

The following Quotations are for Saturday, Sept. 2, 1893:

CHICAGO, ILL.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, white, 8c.; amber, 7c. Beeswax doesn't move at any price. J. A. L.

CHICAGO, ILL.—We are having free receipts of honey and our sales are quite good. Up to now we have had very little surplus. Prices are 15@16c. for the best grades. Discolored combs and the darker grades generally are not meeting with any demand. Extracted honey sells at 5@7c., according to the color, flavor and style of package. Beeswax, 20@22c. R. A. B. & Co.

CHICAGO, ILL.—We quote: Fancy selling at 16c.; choice, 15c.; No. 2, 13@14c.; poor, 12c. With prospects of a large crop, we advise early shipments to the market. Extracted selling at from 5¼@7c., depending upon the color, flavor and style of package, and quantity the buyer will take. Beeswax, 22@24c. We have no stock on hand. S. T. F. & Co.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

ALBANY, N. Y.—More demand for honey. White comb, 15@16c.; mixed, 13@14c.; dark. 11@12c. Extracted, white, 7½@8c.; mixed, 7@7½c.; dark, 6@6½c. Beeswax steady at 26@28c. H. R. W.

CINCINNATI, O.—Demand is fair for extracted honey at 5@8c., with a good supply. Quite a number of small arrivals of nice comb honey found a ready sale during the last few weeks. Demand is fair. The close money market causes slow collections and makes itself felt on the demand of all merchandise, including honey.

Beeswax—Demand fair, at 20@23c for good to choice yellow. Supply good. C. F. M. & S.

BOSTON, MASS. — Fancy white, 16@18c.; No. 1 white, 15@16c. Extracted, white, 7@8c.; amber, 6½@7c. Beeswax, 25@28c. B. & R.

NEW YORK, N. Y.—Our market remains very quiet. Extracted continues to arrive freely; the market is well supplied, and the demand is light. We quote: Southern, common, 60c. per gallon; fair to choice, 65@75c. per gallon; California, 6@6½c. per lb. No new comb honey on the market as yet. Beeswax, gradually declining; 25c. for good yellow at present. H. B. & S.

KANSAS CITY, MO.—Stock very light of comb honey. No extracted on the market. Demand is good. We quote; Fancy white, 17@18c.; No. 1 white, 15@16c.; fancy amber, 14@15c.; No. 1 amber, 14c.; fancy dark, 13@14c.; No. 1 dark, 13c. Extracted, white, 7@7½c.; amber, 6½@7c.; dark, 5½c. H. & B.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white conb honey, 18@20c.; No. 1 white. 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN, 28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & CO., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

See Our New Premium List on page 293, and then decide to get some of the premiums offered for securing new subscribers for the BEE JOURNAL. We want every one of our present subscribers to help us increase the number of our regular readers. Will you see what you can do toward it?

ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor.

DEVOTED EXCLUSIVELY—TO BEE-CULTURE.

Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., SEPT. 14, 1893. NO. 11.

EDITORIAL BUZZINGS

The Dates—October 11th, 12th and 13th.

The Place—The Louisiana Hotel, corner 71st Street and Avenue B, Chicago, Ills., two blocks south of the south side of the World's Fair Grounds.

What of It ?—Why, the North American Bee-Keepers' Association meets on the above dates and at the above-named place ! Everybody should make their arrangements so as to "get there." It must be the biggest and best convention of the North American. COME, and bring your friends. See hotel rates, etc., on page 324 of this number of the BEE JOURNAL.

Beeville, Bee Co., Tex., will be Mrs. Jennie Atchley's permanent address after Sept. 15th. She wishes her customers and correspondents to take notice of this change of her address, so there may not be any unnecessary delays. Mrs. A. and her family will make Beeville their future home. Bee-ville will now be rightly named, as it will have a big bee-woman with a big bee-family, and also lots of bees and bee-hives. Beeville, Bee county, Tex., is the place, and Mrs. Atchley—well, you will know where to find her now.

Keeping in Line in things apicultural is what the principal bee-papers have been doing for a number of months, and we are more than pleased to note the almost perfect harmony existing among nearly all of the bee-publishers. In *Gleanings* for Sept. 1st, after quoting our editorial paragraph on bicycling on page 231, and very kindly thanking us, Bro. Root closed with these words: "By the way, we have kept in line in apicultural matters so far, and may we continue to do so." That is our wish also, and when bee-editors all desire to do right, there should be no need for getting "out of line." We are looking forward to something akin to an "old-fashioned" "love-feast" about Oct. 11th, 12th and 13th, when all "ye editors" and "dose happy bee-mans und bee-vimmens" get together. Will *you* be there, brother—and sister ?

Chas. H. Thies, of Illinois, is the only bee-keeper that has so far notified us of any intention to attend the meeting of the North American next month. Of course there will be a good gathering. Friends, please let us know if you expect to be there, so that we can tell others whom they may be likely to see.

A Perfect Success is what one of *Gleanings'* correspondents pronounces the Langdon non-swarming attachment. A number of bee-keepers still have *faith* that non-swarmers can be made to *work* satisfactorily. Faith and works go well together, you know, whether in religion or bee-keeping.

Have You Read page 325 yet ?

The Freight Rate on Honey from Los Angeles to New York, *via* Sunset Gulf route, on extracted honey in tin cans, boxed, released, in carloads, minimum weight 20,000 pounds, is 75 cts. per 100 lbs.

Mr. C. N. Wilson, in the *Rural Californian*, thinks that this rate, given by the Southern Pacific railroad, is "low enough to satisfy the most radical corporation killer. It will be the fault of the honey producer himself if fair prices are not received by him for California honey, as its quality is such this season as to insure ready sale wherever it is put on the market properly. There is an impression abroad that the honey-yield this year is very large all over California, but the fact is that not more than two-thirds as much honey has been produced in Southern California this year as in ordinary years, not because there was not bloom enough, but because of severe losses of bees in March and April."

Mr. Samuel M. Guest, of Clinton, Wis., called on us last week. He reports a most excellent honey crop in his locality this year—the best in over ten years. It is refreshing to get such a report. Too bad it isn't the rule instead of the more than occasional exception.

Our Biographical Sketches are enjoyed by all, it seems, including our brother publishers, if we may judge by the pleasant things they have to say about them. Here is what we find in *Gleanings* for Sept. 1st:

> The biographical department of the American Bee Journal has been maintained vigorously for over a year now, and in every issue of the weekly. We thought, some three or four years ago, that we had "done up" pretty nearly all the prominent bee-keepers; but new ones are coming to the fore, and it is a pleasure to make their acquaintance. Brother York is a good introducer.

Thank you, Bro. Root. But when it comes to elegant pictures, *Gleanings* is "right in it." The Bee Journal being *weekly*, and 32 pages, yet only $1.00 a year, we cannot afford to use such fine paper as do *Gleanings* and some of the monthly bee-papers, else our pictures might be more creditable. If it wasn't for the fact that the real goodness of our bee-keepers so much overbalances any defects in their pictures as shown in the Bee Journal, we should indeed be tempted to feel discouraged sometimes. Reader, just help us to double our circulation, and then see what we can give you in return for your money and your efforts! If you want a genuine surprise in return, just let all surprise us a little first with long lists, or many short lists, of new subscribers, and also prompt renewals of your own subscriptions.

Bro. Chas. Dadant is at Sturgeon Bay, Wis., for awhile, to avoid the annual attack of hay fever with which he is afflicted when at home in Hamilton, Ills. We are indeed glad to report that his son, Bro. C. P. Dadant, who has been very sick with typhoid fever, is now able to walk about, and hopes soon to be quite himself again. We trust that we, as well as hundreds of bee-keepers from all over the country, may have the pleasure of meeting Bros. Chas. and C. P. Dadant at the meeting of the North American next month. They are the folks that know how to make comb foundation, as is shown by their exhibit in one of the Illinois honey-cases at the World's Fair.

Hon. Eugene Secor, the popular judge of the apiarian exhibits at the World's Fair, will again take of the work of judging honey, etc., about Sept. 16th. When here in July we believe he examined what exhibits were ready, and particularly the honey of last year; this time he will judge the new honey installed recently, and the State exhibits that have been completed since his last visit. Judge Secor will find that great changes have been made during the past month, especially in the exhibits of Illinois, Iowa and Indiana—the three big "I's."

Convention Notices.

PENNSYLVANIA.—The next meeting of the Susquehanna County Bee-Keepers' Association will be held at the Jay House, in New Milford, Pa., on Thursday, Oct. 12, 1893, at 10 o'clock, a.m. All are cordially invited.
Harford, Pa. H. M. Seeley, Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture in every foreign land. Frank Benton, Sec.
Washington, D. C.

The St. Joseph Fair Association will hold their second annual Fair at St. Joseph, Mo., on Sept. 18th to 23rd, inclusive. Rev. E. T. Abbott is the Superintendent of the bee and honey department, and the following is the premium list:

Best colony of Italian bees and best colony of Carniolan bees—Silver Medal and Diploma.

Best display of imported queens on single combs in observatory hives.—Silver Medal and Diploma.

Best display of queens reared by exhibitor, with progeny, on single combs, in observatory hives—Silver Medal and Diploma.

Best display of the general conduct and habits of a colony of bees in an observatory hive without manipulation—Silver Medal and Diploma.

Best and largest display of honey in comb, not less than 100 pounds—Silver Medal.

Best and most attractive display of extracted honey, not less than 100 pounds—Silver Medal and Diploma.

Best display of beeswax and comb foundation—Silver Medal and Diploma.

Best display of honey-producing plants, including stalks, flowers and seeds, all labeled with name—Silver Medal.

Best comb foundation machine, to be operated on the ground—Silver Medal.

Best honey extractor—Silver Medal and Diploma.

Best wax extractor—Silver Medal and Diploma.

Best bee-smoker—Silver Medal and Diploma.

Best crate of 500 sections, open to manufacturers only—Silver Medal and Diploma.

Best foundation fastener—Silver Medal and Diploma.

Best section press—Silver Medal and Diploma.

Best honey knife — Silver Medal and Diploma.

Best bee-feeder—Diploma.

Best queen-cage—Diploma.

Best drone-trap—Diploma.

Best display of apicultural literature—Silver Medal and Diploma.

Best all-purpose hive—Silver Medal and Diploma.

Best and most complete general display of apicultural implements—Silver Medal and Diploma.

Finest and best crate of comb honey, not less than 20 pounds — Silver Medal and Diploma.

Best and finest 20 pounds of extracted honey—Silver Medal and Diploma.

The Louisiana Hotel is the place where the North American bee-convention will be held on Oct. 11th, 12th and 13th. See the advertisement of the hotel on page 324 of this issue of the BEE JOURNAL. Any of our readers who may be coming to the World's Fair before the convention is held, would do well to "put up" at the Louisiana Hotel. Full information, on page 324.

STRAY STINGS

From—
The Stinger.

I have a friend from over the sea,
Who said to me: "I gots von pee;
Him vork und sings like eferytings,
Mit yellow pack und golden vings.
Py tay him goes dose a flowers all round
Und gets dot schweetness py der pound.
Him bin so qvich mit feet und hands—
I dinks I call him—'Fife Golden Bands.'"

"He waxed hot," said a wag, as he saw a bee sting a boy on the ear.

"'Twas sweet, but I hated to do it," said the bee that stung a pretty girl on the lip when she accidentally squeezed it.

Waxmeyer—"Why is a bee-hive like a prison or a convent?"

Honeycup—"Because it is full of cells, I suppose."

Muchhoney—"Say, old fellow, can you tell me what is a rambler?"

Gotnone—"Give it up."

Muchhoney—"A bee, to be sure."

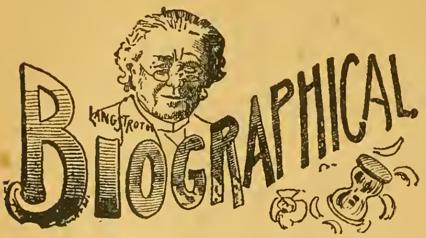
As the producers of pure honey meet in annual convention, why don't the adulterators of honey do likewise? It would be no more than fair play, if they should.

A bee-hive is said to be a female monarchy; yet it is not a petticoat government. This is too bad, for our lady friends cannot take any consolation out of this natural order of things.

Did it ever occur to you that some of our apicultural publishers *wrote* themselves into the business they are now pursuing? Among the number may be mentioned Messrs. Root, Hutchinson and Alley. They all wrote for the bee-papers before they launched out "on their own hook."

Quite a change, chemically speaking, goes on within a man who has partaken of a dinner of baked beans. Can any of the bee-keepers of the Ventura honey-belt tell us if the same gaseous disturbances incident to bean-eating follow the eating of the new bean-honey of California? I would suggest that some of this honey be sent to the apicultural chemical experts in a University, and to the Government bureau at Washington, that they may tell us all about it.

Read our great offers on page 325.



DANA F. PARK.

Bee-keepers, like other people, must sooner or later expect to be called from earthly scenes to those of a higher and better world. We believe that this is only the third biographical sketch of the kind that we have had in the BEE JOURNAL since beginning this department, Mr. Quinby and Mr. Grimm being the others.

Though the leaders in bee-keeping are taken from the field of earthly usefulness, yet they live in the lives and memories of those left to mourn their departure; and with the hope that helpful lessons may be learned from the life-stories of those who have aided in advancing modern bee-culture, and also have been a blessing to mankind in the various walks of life, we present to our readers something about Mr. Dana F. Park, of Athens, Pa., one of our old subscribers, and who for nearly half a century had been engaged in bee-culture, keeping pace with its advancements, and at death his apiary ranking with the best in the section of country where he lived.

Along with his large mercantile trade he acted as a general supply agent for bee-keepers of the surrounding country, and was in correspondence with apiarists in many parts of the United States.

From his son, Robert B., we find that as a lad he learned to hive his father's swarms, and had been actively engaged in the work ever since. After one terrible experience, such as any bee-man is liable to—of falling from a tree with a swarm of bees, resulting in many stings, and necessary staying in-doors for weeks—the sting of a bee produced but momentary pain, no swelling following. He preferred the Eclectic form of hive, and replaced black bees with the Italians at an early date.

Mr. Park died on Aug. 5, 1893, of cancer of the liver, which had affected other organs and the stomach.

The following more formal account of Mr. Park's life and labors among his fellow men, we take from a newspaper sketch published at Athens, Pa., where he had been known and honored for years:

Dana Fish Park, the eldest son of the late Rev. Chester Park, was born in Sheshequin, Jan. 6, 1830. When Dana was five years old the family came to Athens, and his father embarked in the mercantile business. At a very early age Dana was installed as a clerk, spending his time when not in school waiting upon customers. Being unusually bright, he had so advanced before he was out of his teens, that he was thoroughly competent to manage the establishment—a much more difficult task then than in these days when business is done more systematically. When he attained his majority he was admitted as partner in the store. Although the partnership continued until 1862, when the senior member retired, the management of the concern devolved upon the junior partner, and it is no flattery to say that Athens never had a more popular business man.

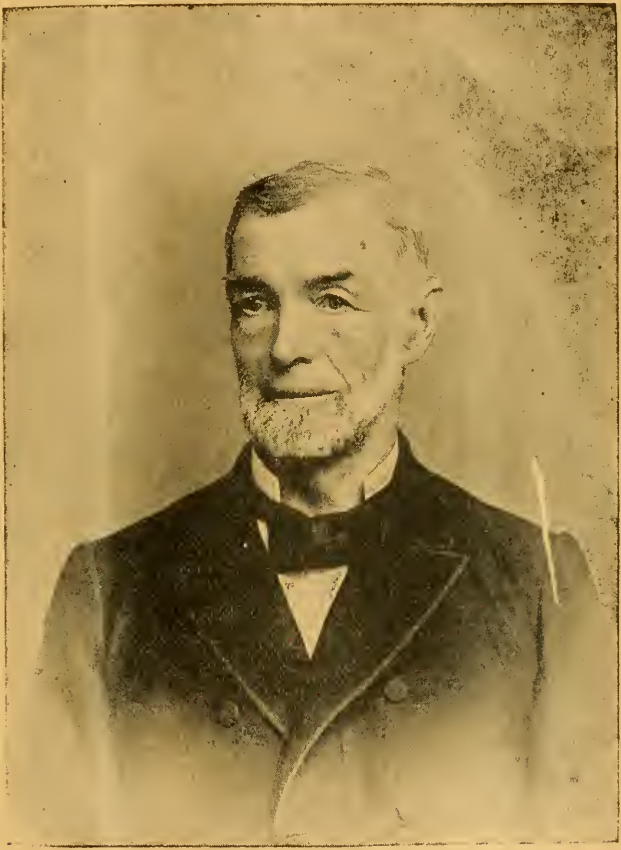
Mr. Park had been twice married; first, to Miss Catharine Ball, Oct. 22, 1855; second, to Miss Lydia M. Carner, April 20, 1865, who survives him, with his four sons, Irvin K., the only child by the first marriage, and William K., Robert B., and Charles D.; also one adopted daughter, May.

Perhaps no other citizen of this village has taken as great interest in its welfare as Mr. Park. During his whole life he has been closely connected with its affairs. He has several times filled offices of honor and trust, such as burgess, councilman, school director, etc., the duties of which were always discharged with fidelity. He has always been foremost and selfsacrificing in promoting the interests of the town and the good of his fellowmen.

During the Civil War he was most energetic in ministering in every possible way to the comfort and encouragement of the boys who went to the front. He was their financial agent at home, caring for their business, and receiving their money sent home on pay-days, and looking after all their affairs without remuneration. His letters to the boys were full of encouragement and cheer. Anything needed for the comfort of the soldiers was freely given. Whenever the news of a great battle was received he was one of the first to go to the front and care for the wounded, and send home the dead. When the confederates moved to Maryland, he enlisted in the 13th Pennsylvania militia, and served in the Antietam campaign. He was a member of Perkins Post, G. A. R., and for the last number of years its chaplain.

Mr. Park was a man of very strong and positive convictions. Of a modest and retiring nature, he never sought popularity nor position, but he had a keen sense of honor and of right, and when convinced of duty, he was immovable and unswerving in its performance. Of large heart and generous impulses, he stood firmly for what he believed to be right.

But this sketch would be incomplete without a few words in regard to Mr. Park's Christian character. He was converted in the spring of 1858, and united with the Baptist church, of which his wife was a member. His conversion was a marked one. It changed the whole tenor of his life. He immediately threw the whole power of his positive nature on the side of the Christian religion. His life became imbued with the spirit of Christianity. For years he was actively engaged in revival work in outlying neighborhoods. In Wolcott Hollow, he maintained religious meet-



DANA F. PARK.

ings weekly, and sometimes nightly, for a long time, conducting the services himself, when no clergyman was present. As a church member he was always ready and efficient in any work to which he was called until failing health compelled him to desist. How many there have been, the current of whose lives were turned Christward by his efforts, can only be known when that day comes in which all things shall be revealed. Death came to him as a messenger of peace and rest. Gladly he committed his spirit into the keeping of Him in whom he had believed.

His funeral was attended from the family home Tuesday, Aug. 8th, at 10 o'clock a.m. The services were conducted by the pastor of the deceased, the Rev. L. E. Wheeler, of Waverly, N. Y., who paid a fine tribute to the life and character of his deceased parishioner and brother. The casket was covered with beautiful and delicate floral offerings. The one of special beauty and magnificence was a pillow of roses presented by many of his comrades of the 13th Regiment of Pennsylvania Militia, as their tribute to his memory. The pallbearers were his longtime friends and associates.

The business places were closed during the hour of services, and the people gathered in large numbers to testify of their respect and personal regard for one who has filled so large a place among them.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—Ed.

Queen that Stopped Laying.

Will a one-year-old queen cease laying for a month or more, and then commence again? What would be best to do with her? The circumstances are as follows:

On Aug. 15th a good, strong and profitable colony, with a last year's queen, was found to contain neither brood nor eggs, and supposing them to be queenless, a this year's laying queen from a nucleus was caged and laid on the frames for 24 hours, when all seemed favorable to liberate, and she was freed. The morning of the 20th I examined them, expecting to find eggs if not larvæ, but I went entirely through and found neither. On casting my eyes in front of the hive, I noticed a queen and one bee on a blade of grass. I caught her, and she seemed to not have near the life and activity she usually had. I placed her at the entrance, and the bees recognized her, and she slowly crawled into the hive, when I discovered her to be the older queen, as her wing is clipped.

A bee-keeper friend thought probably both queens were in the hive, the old one disabled in some way, so I examined carefully this morning, and found only the older queen, and to all appearances all right. They have always been gentle, but now they are quite cross.

J. W. Southwood.

Monument City, Ind., Aug. 21, 1893.

Answers.—The probability is that the best thing you can do with that queen is to pinch her head off. She has not been laying for at least three weeks, and it is not likely that she ever will. If you had killed her before introducing the other queen, it would have made a difference as to the reception of the latter.

You are probably right in concluding that the queen you introduced has been killed, but please remember that your not finding her is not proof positive that she is gone. Sometimes a queen hides so that she cannot be found. You found the old queen on a blade of grass, and if she crawled out of the hive without any interference on your part, you may take it as pretty sure evidence that she is worthless, seeing there is no brood in the hive.

A Beginner's Experience with Bees.

About May 15th a swarm of bees settled in my back yard. I caught and hived them, but I never had any experience with bees before I subscribed for the American Bee Journal and got "Bees and Honey" as a premium. I am in a mess; my bees have been apparently working hard since I hived them, but they have only filled 2 frames with comb. They have filled about half the comb with brood, and have filled about one-fourth of the other cells half full of honey. It seems to me that something is the matter. Should I get a new queen and put her in, destroying the old queen? or should I leave the old queen in and feed them for winter? I don't think they will gather enough honey for winter. My bees are the 5-banded variety. As this is my first trial with bees, I am naturally discouraged. Please answer through the BEE JOURNAL, and tell me also which variety of queens is the best, and where I should purchase.

HUGH RAY BROWN.
Holly Springs, Miss., Aug. 15, 1893.

ANSWERS.—Your bees are certainly not doing a land-office business, and the question is, where lies the fault? What are other bees doing in your vicinity? If there is no harvest, and other bees are doing nothing, then your bees are not to blame.

If the swarm was very small, then it may be that they have done all that ought to be expected of them. But if you had a good-sized swarm, and there has been a fair honey-yield, then there is something very decidedly wrong in their building only two combs in three months from the middle of May.

It is not the easiest thing to say what is wrong without seeing the colony. It is possible that they became queenless and have laying workers. Is the sealed brood worker-brood? Do the cappings show a level surface, or are the cappings somewhat in appearance like a lot of little marbles laid together? If the latter, you may suspect a drone-laying queen, or else laying workers.

In any case, it is somewhat doubtful if you will succeed as well by anything you will do with them as you will to make a new start with a colony that you know to be all right. If, however, you want to try a new queen, you will find reliable dealers among the advertisements in this journal. Other things being equal, order from the one nearest you.

Wintering Bees in a Smoke-House.

Will bees winter well in a stone smoke-house, without getting the smell of the smoke out? If not, how could the smell be gotten out?

Irene, Ill. W. L. HARRINGTON.

ANSWER.—Perhaps there is nothing better to get out the smoke than to thoroughly air the smoke-house, although it is not certain that a good deal would not then be left. A heavy coat of whitewash of quicklime would help to make it sweeter. After keeping it open, if possible, all summer to thoroughly air it, then wash the walls with hot water thoroughly, let it dry, and then whitewash.

That's answering the question as you put it, for you seem to take it for granted that aside from the smoke there will be no trouble in wintering bees there. That's a matter by no means certain. Better not try more than a few. While some report entire success in wintering bees in houses built specially for the purpose, allowing an exit for the bees so they can fly whenever they want, there are few if any reports of successful wintering in ordinary buildings above ground

Two Laying Queens in One Hive.

I had a colony of bees that kept two laying queens for about five weeks, then superseded one of them. What was the cause of that? There were worker-bees flying at the same colony from both queens at once. There was no division-board in the hive, and no upper story.

T. J. MOFFITT.
Kemp's Mills, N. C., Aug. 10, 1893.

ANSWER.—Formerly it was thought that only one laying queen would be tolerated in a hive at one time. A good many reports of two laying queens in one hive, however, show that there are many exceptions, and it is generally supposed that when the old queen approaches the period of her decline, a daughter is reared to take her place, the mother often continuing to lay for some time side by side with the daughter.

IN SUNNY SOUTHLAND

CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Getting Bees Ready for Winter.

As questions are already beginning to come in, asking how to prepare bees for winter, I will say a few words early, so the beginners will have plenty of time in which to get their bees ready for winter. The following directions are for all the South below the line of northern Arkansas or Tennessee, or latitude 35°:

First, see that the queens are all laying nicely in September or October, so as to have the hives stocked with young, vigorous bees for winter. Next, do not rush to a conclusion that your bees are queenless because you find no brood in October, for the queens will likely stop laying about the time white frost comes, or when the leaves begin to fall, as this brings a stop to pollen and honey storing, so do not be alarmed at finding no brood, for if they have a fair colony of bees, they are all right, queen or no queen. When you make an examination in the spring, about the time new pollen is gathered, you will then be able to easily tell the queenless colonies, as all good queens *will* begin to lay soon after new pollen comes in. Then give each queenless colony a queen, and they will work right off with the same vigor as those having queens all winter.

Now, do not think this strange, for I tell you these things because I have known many beginners to examine their bees in the fall, and pitch right out and order a queen, and put her into their supposed queenless hive, just to have her killed, and thus lose a dollar. If your hives in October have average colonies of bees, you may be pretty sure they have a queen; but if you *really know* a colony to be queenless in the fall, of course you can give it a queen then just as well as in the spring.

Next, see that *all* the colonies have at least 20 pounds of honey, and a good, tight single-walled hive, and they have all the attention they need for winter in this latitude. The most essential thing about the hive is a *good, tight* cover to protect them from the cold, sleet and rains that we are likely to have here in December, and on up to March.

I believe this is about all that is necessary to have the bees in tip-top condition for winter.

If you have not gone crazy on increase, and have your bees too weak, or else extracted from the brood-nest too late, your bees are apt to be *O. K.* without further attention. In fact, my way to quickly ascertain how my bees are fixed for winter, is just to raise the cover for a moment, and catch the sound as it comes up from the colony. This tells me just about how they are off for bees, and then I place the cover back securely and lift one end of the hive, and this weighs pretty accurately, to me, the amount of stores, etc., as my hives are all about the same. Now some may accuse me of too much guess-work about it, but it gives me just about as accurate means of telling how they are fixed as if I pulled them all apart, which is quite a job late in the fall. But if you cannot trust yourself in this way, you can dissect the whole hive.

The above directions are for beginners in the South, as I do not pretend to instruct the veterans. I only give my own plans, stripped clear of theory, and as I have been pretty successful in wintering bees for years, I feel safe in giving my plans to beginners. But if any of you know a better way, by all means use it.

JENNIE ATCHLEY.

Very Poor Honey Season.

MRS. ATCHLEY:—I report for 1893 the poorest honey season since I have kept bees. I had some 30 colonies, spring count, increased by dividing to about 60, with an average of a little over one pound of honey to the hive. General farm crops are very poor, on account of continuous dry, hot weather.

A. T. MCKIBBEN.

Flag Spring, Ky., Aug. 15, 1893.

Various Experiences with Foul Brood.

As those that have been "through the mill," as it were, with foul brood have been called on to speak out, I will add a little mite of experience.

In the year 1879, or 1880, we purchased an empty hive that had contained a foul-broody colony the year before, but we did not know it at the time we put a swarm into it, and they took the foul brood, and I could only save 4 out of about 100 fine colonies. I would be afraid for the wind to blow through my bee-yards from a foul-broody colony. I tell you it catches, and takes a death grip, and holds it, too, unless the severest means and most thorough cleansing and care be taken to check it.

A few years ago I had an out-apiary situated in a creek bottom, and there came an overflow just at swarming time, when the hives were all full of brood in all stages, and drowned the bees nearly all out, washing some hives clear away, and the brood all rotted in the combs, and no trace of foul brood followed, nor anything else. But when the combs dried up, they were given to other bees, and they cleaned them up, and all was well.

Again, sometime after that I shipped a carload of bees in hot weather, and 70 of the strongest colonies smothered, as they were heavy with brood and bees. I unloaded them, cleaned up the dead bees, gave the combs of dead brood and some honey to other colonies, and no disease or any disturbance followed. I say foul brood *cannot* be started by dead brood of any kind or character, unless the germs of *foul* brood were there before.

Now, our Canadian brothers may have a different kind of foul brood from what we are used to. We have no right to dispute any of Mr. McEvoy's statements. I have not a word to say against his cure, or his foul brood in Canada, as he seems to be doing a wonderful work, and a good work, too, in curing the foul brood they have in Canada; but I would just have to see him cure such foul brood as we had, by his methods and treatment. Putting bees into the same hives where foul-broody bees had been before, will not work in Texas. But who knows but it may in Canada? They are different countries, you see.

JENNIE ATCHLEY.

Some Queen Questions.

MRS. ATCHLEY:—I introduced a fine queen some days ago, and she was released all right, and two of my neighbors came over and wished to see an Italian queen, so I lifted the comb half way out, and she became frightened and flew away, and I found her at the entrance of another hive with a ball of bees around her. I took her from the bees and returned her to her own hive, and they balled her also. Please tell me what caused them to do so. Would it not be better to keep the queen caged a couple days before giving the bees a chance to eat out the candy, that they may become more acquainted with the queen?

Will you please tell me if a pure or tested Italian queen will lay pure Italian eggs? Will she do so next year, as some here say they will not be pure the second year? Also please tell me if a young queen will hatch out and kill my new queen, as I see they have a sealed queen-cell.

J. W. ALLISON.

Dan, Tex.

Friend Allison, the reason the bees from her own hive balled their queen when you returned her, was on account of the sting poison the bees had saturated her with. Bees will ball their own queen just as quickly as a strange one, when she has sting poison on her. The next time you have a queen take wing, shake a frame of bees right down in front of the entrance, and close the hive quickly, step back out of the way, and she will return all right.

In some instances it may be better to keep queens caged a few days in the hive before giving the bees access to the candy, but I never do so; I always see that they have candy enough to completely fill up the food hole, as when a queen has come a long way the candy may be nearly all gone; in such cases there ought to be more candy put in. I seldom lose a queen by the candy plan.

Yes, a pure Italian queen will lay eggs that will produce pure Italian bees, if she has been purely mated, and her eggs will produce Italian bees as long as she lives.

Yes, usually when a young queen hatches out, the old queen is destroyed, unless she is removed.

JENNIE ATCHLEY.

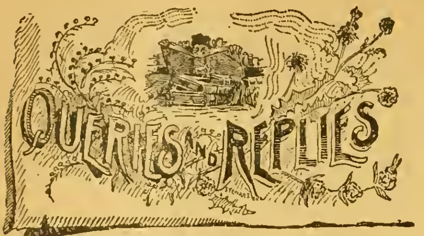
Southern Reports for 1893.

Reports are coming in from all over the South, and our State has had a good honey year, with the exceptions of a few localities. South and southwest Texas have a fair yield this year. Some portions of Mississippi have good crops. California has done no bad things in getting honey, but of course they did not have one of those old-time *big* crops.

The portions of Tennessee heard from have average honey crops, and in most parts of the South crops of honey have been fair, considering the amount of bees in the spring, as bees were usually in poor condition and weak when they ought to have been strong. There lies the secret, friends. If we will attend to our little pets in the spring, and at times when no honey is coming in, they are most sure to repay, and in good money, as we cannot expect a poor, weak colony of bees to build up from the stump, and gather much surplus. Unless we have an eye on this, we are going to miss a honey crop, surely. Let the bee-keeper work for bees, and at the right time, and the bees will then take care of the honey.

JENNIE ATCHLEY.

Honey as Food and Medicine is just the thing so help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the BEE JOURNAL for description and prices.



What to Do with Partly-Filled and Uncapped Sections.

Query 888.—All things considered, what is the very best disposition to make of partly-capped and uncapped sections of honey after the season is ended?—N. C.

Sell or use immediately. — MRS. L. HARRISON.

Feed them back to weak colonies.—WILL M. BARNUM.

Extract the honey, and use the sections for "bait" next season.—EUGENE SECOR.

Extract the honey from them, and put them on another season to be filled.—P. H. ELWOOD.

One good way is to pile them on some colony short of stores, and let it clean them out.—H. D. CUTTING.

The best save after extracting the honey, and the rest burn after cutting out the comb.—J. H. LARRABEE.

Extract the honey, let the bees clean them up, and store for use or "bait" sections the next year. — G. M. DOOLITTLE.

If you can do it successfully, feed and have them filled; or else extract and keep the combs until next season.—A. J. COOK.

To extract the honey, return the section to the bees to have them dried up, and preserve them for next summer.—DADANT & SON.

My own idea is to let the bees clean them out, and then keep them over for another season. But why have many such sections?—J. E. POND.

I don't know. If you manage to the very best advantage, you will have very few or no such sections on hand at the close of the honey season.—C. H. DIBBERN.

If you have a market for them, sell the best for something less than full price. It may pay to extract some. As for the rest, put them in piles in supers, protected from the weather, and let the bees rob them out, allowing entrances for only two or three bees at a time, so they will not tear the combs.—C. C. MILLER.

Cut out all the honey that is capped, and sell it for chunk honey. Let the bees clean out what remains. Consign the combs to the wax-extractor. The sections will make kindling-wood.—EMERSON T. ABBOTT.

1. Sell the best, if the market will admit of it. 2. Feed back to colonies not fully provided with stores. 3. Extract the honey, and allow the bees to clean them up, then store away in close room for future use.—J. P. H. BROWN.

Sell all you can at the best price obtainable above the price of extracted honey, then extract the rest. Let the bees clean up the sections, and then store them in a dry place, safe from mice, for next season's use.—S. I. FREEBORN.

Throw the honey out with the extractor; put the sections back in the hive, and when the bees have removed all the adhering honey, put them away where they will be kept clean and free from worms, and use them next year.—M. MAHIN.

My plan has always been to extract them. Place them on top of hives to be cleaned up, then stored away in a nice, dry place for next year's use. There *may* be a profitable way to feed and get them filled, but I have not yet found it. —MRS. JENNIE ATCHLEY.

That depends upon how much honey they contain. I think it most profitable for me to collect those nearly full, put them back and secure their completion by feeding extracted honey; to extract from the medium ones and to allow the bees to carry the honey out of the lightest ones.—R. L. TAYLOR.

There are two methods of management—and only two—by which the unfinished sections can be handled without loss. The more profitable of the two plans is to have them completed by feeding back pure honey, having the work done by properly prepared colonies. If you do not have the skill to conduct this work, the next best way is to extract the honey from the section combs, let the bees clean them, and then preserve them for the next season. Their after management is another matter to consider.—G. W. DEMAREE.

◆

Great Premiums on page 325!

CONTRIBUTIONS

Introducing New Blood to Our Apiaries.

Written for the American Bee Journal
BY DR. G. L. TINKER.

The best time of the year to supersede undesirable queens is in August and September. They may be old queens or hybrid queens, or queens that may be objectionable from some other cause. Each apiarist will have his own notions of improvement of his stock of bees. While some will want only 3-banded yellow bees, others seem satisfied with a mixed strain; and it will have to be admitted that for honey-producing, a mixed race, and particularly the Syrio-German hybrid and the Italio-German hybrid, are unexcelled as workers. Many bee-keepers deny this statement, but if they have good reason to do so, they have been every year introducing several queens of unrelated pure Italian stock, and so have kept up the vigor of the queens and activity of the workers—a steady improvement being the result. Hence, it may be admitted that pure, well-bred Italians are fully the equal of the best hybrids for honey, but not that they are better. The fact remains that the constant infusing of new blood into an apiary tends to the development of the highest producing qualities of the bees; and this may be said of hybrid bees as well as of pure Italians.

My brother, C. O. Tinker, residing in Ashtabula county, Ohio, has as good a strain of bees for practical honey-producing as there is in the world to-day. They are only Syrio-German hybrids, the mother-stock being of Syrian origin, and hence every queen is a Syrian by direct descent. His start was made from my Syrio-Albino bees. However, they are now quite dark, from having every year mated to the common black drones of the locality. These bees are now great swarmers, because so highly prolific, and still they produce a large amount of honey of the finest quality every year. They are not only the finest comb-builders, but are energetic to a high degree. Though a colony may swarm until a few bees are left, they build right up again in a little time, and are ready for the toughest winter on record, without protection, and in the thinnest of hives. Although they winter better with protection, I have been surprised that bees could stand such cold winters in a single-story of my small hive without care or protection of any kind.

The fact is, my brother has the bees and can't sell them, or even give them away, and not having the time to attend to them as they should be, they simply take care of themselves, store honey, swarm and go to the woods. He has lost 15 swarms so far this season, from 11 colonies has obtained several hundred pounds of the choicest honey, and his 13 colonies left are all strong and in good condition. For hap-hazard bee-keeping, this beats the old box-hive men badly, as the bees are in the Nonpareil bee-hive, that I had supposed required much care to winter and breed up into serviceable colonies. He uses but one story of the hive, and seems to get as large colonies as any one could desire.

There is no doubt about the extreme hardiness of the bees, and their great prolificness—two of the most valuable features in a strain of bees that I believe are largely the result of much crossing the Syrian with the German race of bees. The most singular thing about them is the fact that although located close to the business center of a city, they never have stung any one outside of the fence that incloses them, and several families live very close, and one not over 40 feet from the bees.

Now, lest someone will want some of these bees, I will not forget to add that they are the ugliest bees to handle I ever saw. They must be well smoked, and then rubber gloves and bee-veil are necessary, besides tying up the coat-sleeves and pant's-legs, as they will crawl all over for a place to sting. It is even dangerous to go near them without protection. And this is the reason no one wants to buy them, or even take them as a gift. So long as they give no trouble, they are unmolested except by the fortified venture of my brother among them for honey.

It is probably not generally known that the crossing of unrelated bees of any pure race results in producing bees more difficult to handle than the original. They many be very gentle, but the new cross is rarely so.

Again, a strain of bees may be unprolific, indolent, and next to worthless, but if the young queens are mated to drones of unrelated stock, the queens at once become prolific, and their workers fair honey-gatherers.

The above facts have a practical application to all bee-keepers, and should stimulate them to introduce new queens to their apiaries every year. Thus we shall give encouragement to our numerous queen-breeders, and steadily advance our own interests.

Tuscarawas County, O., Aug. 4, 1893.

Donating or Purchasing Honey for Exhibition Purposes.

Written for the American Bee Journal

BY DR. C. C. MILLER.

FRIEND YORK:—Dr. Mason and you can settle your quarrel to your own liking, and I'm not going to interfere. I merely arise to make a little question as to one position that Dr. Mason seems to take on page 201, and that is, that less credit is due for an exhibit made by purchase through funds appropriated by a State than for an exhibit made up of loans or donations of individual bee-keepers.

Given two States exactly alike as to their honey resources—in fact, alike in every respect except that the exhibit of one State is made up entirely of loans and donations, and that of the other is made up of purchases made by the State—and I don't see that these two differing items should at all be taken into account by the judge in making the award. If not by the judge, then not by others. The question is simply, "Which is the best exhibit?" without saying how the exhibit was secured, providing all was fair in the securing. The State that makes the best exhibit deserves the most credit.

Of course, there is no disputing the credit due to an individual bee-keeper who makes a large donation to his State exhibit, and I would be the last one to attempt to diminish that credit, but when you come to consider the exhibit as a whole, I maintain that the matter of donation or purchase has nothing to do with it.

Take the case of the two supposed States. In one of the States the bee-keepers hold a council, and one of them says, "We want to make the very best showing that we can for our State. I, for one, am willing to donate or loan a goodly share of the best I have, and no doubt others are equally willing. But if the right means are used, I believe we can have an appropriation from the State, and thus secure a finer exhibit than in any other way." And if what he says is true, don't you think they will all agree that a public appropriation is the best way? Fools if they don't. If you raise the objection that these bee-keepers are not entitled to credit for what is obtained through public money, I reply that some one deserves credit for the exhibit, and pray who is it? If the bee-keepers set in motion the machinery that brought out the exhibit, then they deserve credit for it.

Ten men of one State donate a thousand pounds of fine honey. They deserve credit for it. Ten men of another State put their heads together, and by fair and honest means secure a State appropriation that gets a thousand pounds just as good as the first. Don't they deserve just as much credit? And if the purhcase is greater, then is not the credit greater?

PLEASE BE FAIR.

While I am writing, allow me to refer to the item on page 216. Is it entirely fair to insinuate that *Gleanings*, for its own benefit, is trying to lower the price of honey by reporting that the crop is large? Does Bro. Faylor know that *Gleanings* refuses to publish accounts of small crops? If bee-keepers send in reports only when they secure large crops, and are silent as to small crops, can we blame the bee-journals? Let's be fair.

Marengo, Ill.

[Doctor, we hardly think that Mr. Faylor wished to "insinuate" anything as regards *Gleanings*, though it may appear so. We are very certain that *we* didn't look at it in that light, for the publishers of *Gleanings* we feel are too honorable to do such a thing as is intimated. Certainly, any bee-paper that should thus conduct itself would not be working for the best interests of bee-keepers in general; and if *Gleanings* is not helping bee-keeping most wonderfully, where is the bee-paper that is? Self-interest and selfishness are short-lived in almost everything where they are allowed to rule.—ED.]

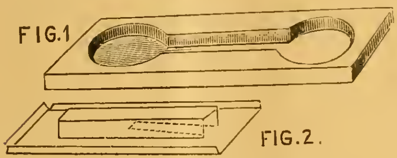
Something About Bee-Escapes—The "Handy" Escape.

Written for the American Bee Journal

BY B. TAYLOR.

I send a sample of my "Handy bee-escape." I have within the past three weeks taken off at least 150 supers of honey with these escapes, using 40 of them for that purpose. I have on one day put 30 of them upon hives on which there was from one to four 24-section supers, and by the evening of the next day they would all be so completely cleaned of bees that we could take our spring wheelbarrow and carry every super to the curing-house without delay or stirring up the bees of a single hive.

In the house-apiary, especially, the honey can be taken without the bees seeming to know that their treasures are disturbed at all. It will be seen that this escape is the most simple of any yet brought to notice, and is so small that but one bee can enter it at a time, and as I see in reading the bee-journals that there is much talk of the need of an escape that would enable the the bees to get out in large numbers at the same time, so the supers would be emptied quickly, I thought I would give my experience with escapes. I recently received a sample escape from Mr. R. J. Stead, of Ontario, Canada. His is made of 5 little gates of zinc, and if all of them were opened at the same time, it would make an opening ⅜x2½ inches. That this escape will clean the bees from supers I know without trying, as I had experience with a similar device many years ago; but as Mr. Stead's device lets the bees escape on the outside of the hive, into the open air, it would not work in my house-apiary, as the bees would be let out into the house—the very thing that is to be avoided. For out-door work it has this objection, that you first have to put the board containing the escape under the supers, and then after waiting one-half hour, you must go and give each hive attention the second time. With the Handy escape, the Porter, and that class, you have only to put the escape board under the supers, and they require no further thought, the bees going directly down into the hive, which I am quite sure is a better way than to let them out of the hive, to find their way back again.



Taylor's "Handy" Bee-Escape.

Fig. 1.—Part of escape board showing opening for the metal escape.
Fig. 2.—Metal escape to be inverted over one end of the opening in the escape board.

When I first saw Mr. Stead's machine, it at once called up an early experience of my own—early in the sixties. I was moved to find some way of getting rid of the immense horde of drones in my apiary, that would, on an afternoon when they flew out for their daily exercise, roar like a great waterfall. At that time all our brood-combs were built from comb-guides, just as the bees elected to have them, and some of the hives would contain quite one-half drone-comb, and as the hives were quite large, there would be a multitude of male bees that would make all profit an impossibility. To catch and destroy these surplus drones, I invented a trap made nearly exactly like Mr. Stead's escape. This trap was composed of many little gates of tin placed side by side in a strip of wood the whole width of the hive. They were made so that the worker-bees could get inward under the ends of the gates, but the larger drones could not return, but could get out without hindrance. I expected to go to the hives the next morning after they were on, and catch and kill the whole herd that would be clustered on the outside of the hive, and kill them by throwing them into a pail of water.

I put some traps, one day, on such hives as had the most drones, and was greatly pleased to find at evening the hive fronts covered by gallons of the desired dead-beats. The next morning I dipped the black mass from the front of a hive, and hurled them into the tub of water. I sized them under, and they were soon dead. But on examining them closely, what was my disappointment to find I had killed more worker-bees than drones! My traps were a practical failure; they would catch the drones, but the worker-bees are on good terms with them, at this time of year, and will stay out with and feed them for weeks.

I have long ago ceased to rear a useless herd of male bees—there is not enough of them now in my yard to attract notice on the fairest afternoon. Full sheets of brood foundation was the means to this profitable end.

I made some of these traps of many

springs placed side by side, and when the question of escapes was raised, my thoughts at once went back to my early experiments, and I made an escape by placing 8 springs side by side. I also made some with a like number of little metal gates, similar to Mr. Stead's. I thought that there must be a big room so the bees could get out quickly. On trying, I was disappointed. The supers were not cleaned of bees as I had expected, and I made some of only one-half the size; these worked better, but were not satisfactory, and I kept on decreasing the size, each lessening of the seeming capacity increasing their practical value, and I resolved to make one with a *single spring, and so small that but one bee could enter it at a time*; and now, after three years' use, in comparison with all the noted escapes, I know that it will do the work perfectly, and more quickly than any escape that allows several bees to enter at the same time. In the Handy escape, each bee, as it enters the escape, is compelled to go ahead, as there is not room to even turn around.

After using this escape for 3 seasons, I know that it will empty 3 or 4 supers, all filled with bees, more quickly, and with far greater certainty, than any escape that makes *a large opening between the super and brood-nest.*

I have proved by extended experiments that the nearer the bees are cut off from the brood-nest, the more anxious they are to get out, and the sooner they will do so; and I here advise all experimenters who are trying to invent a wholesale escape, to waste no further time, as the facts here stated, I am quite certain, explain the nature of the case, and will render all effort to evade them unavailing; this natural condition being that the nearer the bees in the super are cut off from the brood-nest, the sooner they will go out.

Forestville, Minn.

More About Bean-Honey Production in California.

Written for the American Bee Journal

BY M. H. MENDLESON.

Some time ago I received the following communication from Wm. A. Pryal, of North Temescal, Calif.:

"I saw a clipping to-day, taken from the *Venturian*, which connected your name with a matter that I have taken some interest in since I was at the World's Fair a little over a month ago. It is in regard to bean honey. I wanted to get some facts about such honey.

"The last time I was in the California building on the Fair grounds, I ran across an exhibit of a bee-hive and a quantity of rather fair-looking honey from your county. A Dr. Archer was the exhibitor. The honey was said to have been gathered from the blossom of the bean. This sort of honey was new to me; though I have seen beans in greater or less quantities for years, I do not remember ever having seen a bee on one of the blossoms. Before I left Chicago I called Mr. York's attention to this exhibit—in fact, at that time it was the only honey shown in said building.

WM. A. PRYAL."

Friend Pryal requested the information through the AMERICAN BEE JOURNAL.

My attention was drawn to the bean honey a few years ago, by our congressman, Mr. Cannon. He has a beautiful home out in the Santa Clara valley, partly surrounded by hundreds of acres of fruit trees, and thousands of acres of the bean-fields. He caught many stray swarms of bees, many of which I bought from him, and of late years I have bought all that he caught, by furnishing the hives, etc. I noticed the honey from these colonies was mostly of a superior quality, of light color and good flavor. I thought at the time that it was from the fruit-bloom, but Mr. R. Wilkin and others called my attention to the fact that their bees had filled up from the bean bloom, consequently I investigated on a small scale, and Mr. Archer, a year later (1892), on a larger scale; 1892 was rather dry for the bean fields, and a failure with the sages, still the experiment proved that if they filled their hives in a dry year, a wet season ought to prove better, or give considerable surplus. Mr. Archer had done well.

A number of my friends wished to discourage me from a further venture. This season I have several hundred colonies in various places in the heart of the bean-fields, with good, portable extractor houses. The results I shall give at the close of the season.

One apiary of nearly 300 colonies I moved 19 miles during nights, never losing any time from the sumacs till evening, to the bean-blossoms the next morning. The majority of these colonies were too strong for single story hives, filling two stories. One week later many of them were nearly full, proving a success in moving without loss.

There were, last season, 22,000 acres planted to beans, and the crop amounted to nearly 1,000 carloads. These figures I have gotten from the bean men.

This season was late for bloom. I noticed the first bloom the last of June, but not much honey is gathered from the first two weeks' bloom—one of my apiaries has been gathering honey for only two weeks back; *now* all colonies are crowding their queens with honey of light color and good flavor.

I should mention that the main varieties of beans planted are Limas and small whites, but there are many other varieties planted.

Later in the season I shall try to get the exact number of acres planted to beans, also the amount of beans raised, and general results. The crop will be immense.

Ventura, Calif., Aug. 7, 1893.

◆

Bee-Paralysis and Starvation with Plenty of Honey.

Written for the American Bee Journal

BY H. F. COLEMAN.

The fall season of the year is now coming, and with it we may expect the usual amount of bee-paralysis, and we should remember that stimulating by proper feeding is almost, if not quite, a specific for the disease.

In this connection, it is well enough to say that it is not every case of bees dying in large numbers from a hive, that is a case of bee-paralysis. It is sometimes hard to distinguish between this disease and starvation. At this season of the year bees frequently starve with plenty of honey in their hives, and we are apt to class such cases as bee-paralysis.

I think I hear some one say—Mrs. Atchley, for instance—Coleman, are you certain that bees sometimes starve with honey in their hive? That is just exactly what I mean, but let it be understood that I do not mean that whole colonies starve with honey in their hives.

Not long since I was passing through my apiary, and saw the bees carrying out young, downy bees from one of my best colonies, headed by a golden queen. I knew the colony had plenty of honey, but I thought I would make an investigation, anyway; and upon investigating I found that the honey in the hive was confined to the outside combs, and that the combs from which the bees were hatching contained no honey at all, and that the bees just hatched were weak and actually dying of starvation with plenty of honey only two or three combs from them. I shifted a comb containing honey, so as to give the hatching bees access to it, and the remedy was complete. The young bees quit dying in a few minutes, and have not died any since. This is only one of many instances of the same kind that have come under my observation, but it will suffice to establish the fact in question.

The idea that hatched bees feed each other, only as they do incidentally when honey is coming in, is not in accord with my experience, and is, in my opinion, at variance with the truth. When honey is coming in, the field bees deliver it to the younger bees, and the younger bees store or consume it, as may be demanded; but when no honey is coming in, every adult bee helps herself, and if, in such cases, she should happen to be so situated that she cannot find the honey, starvation is the result, though honey may be in the hive.

Sneedville, Tenn., Aug. 15, 1893.

◆

The New York State Honey Exhibit at the World's Fair.

Written for the American Bee Journal

BY DR. A. B. MASON.

I have read, on page 309, Mr. O. L. Hershiser's comments on what I said on pages 200 and 201 of the AMERICAN BEE JOURNAL, in regard to the New York honey exhibit, to which I wish to make a reply.

Please let me preface what I may say, with the statement that Mr. Hershiser and myself are the best of friends, and would be glad to do, and do do, each other favors whenever opportunity offers, and I believe he has no feeling against me, and I *know* I have none against him.

I wish also to say that in commenting on the editorial on page 137, which seems, by Mr. Hershier's article, to have been furnished by Mr. H. himself, I did not call attention to all the misstatements that seemed to me to be quite large. For instance, the editor says in speaking of the space it occupies, "It occupies a floor space approximately 30x50 feet," which equals 1,500 feet of floor, when, in fact, taking the editor's, or rather Mr. H.'s figures, it occupies only 440 square feet, or less than one-third the space claimed; and the contents of the case said to be 18x5 feet square is practically not on exhibition, one side and both ends of the case being part of the building and case, and entirely hid from view, and the other side almost constantly closed with curtains.

I shall have to admit the truthfulness of Mr. H.'s statement when he says, "This was not, however, a case where the 'crooked was made straight,' but exactly the opposite," for it was not the editor that was "crooked," but rather Mr. H., and my unsophisticated effort to right the editor has led Mr. H. to reiterate the crookedness.

I beg to ask the readers, notwithstanding Mr. H.'s reference to my being "noted for jocularity," to take my "statements seriously," for when I said (in reference to the claim of there being 5,000 pounds of comb honey and 3,000 pounds of extracted honey on exhibition in the New York cases), "If you will just cut your figures in two, saying 2,500 and 1,500 pounds, respectively, you will be much nearer the mark," I said just exactly what I meant, having in mind that I might be called to account for it, in which it appears I was not mistaken. Like Mr. H., I "made no attempt at absolute accuracy," but having read the editor's, or Mr. H.'s, editorial, I did take the pains to count, as did other exhibitors, the number of sections on exhibition, and I found 2,752 sections, besides 98½ pounds the product of one colony, only a portion of which was "in sight," and I thought that 2,500 was much "nearer the mark" of being the correct amount than 5,000 was.

Let me say, also, that I have since gone over the exhibit with other exhibitors, and find 2,779 sections to be "approximately" correct, and 2,500 sections would be "nearer the mark" than would 5,000 pounds, especially when we take into account the fact that many sections do not weigh a pound each.

I have just weighed some sections of honey that are as well filled as are the New York sections, and find them to weigh less than 15 ounces, which would make the New York exhibit about 2,600 pounds of comb honey, besides the 98½ pounds before referred to. With another party, I have also counted the jars of extracted honey, and weighed the contents of jars of the same size that I have on exhibition, and I find that 1,500 pounds was a generous estimate.

It seems hardly possible that my "early education in the rudiments of arithmetic is becoming impaired," according to Mr. H., without getting off 2,500 in 5,000, etc.

In regard to Mr. H.'s statement that New York had "more than ten times as much comb honey......as any other State," etc., I will say that if my figures, 2,752 pounds, are approximately correct, I was not far from right when I said, "Had you said five times as much, instead of ten, you would have been nearer the mark," still holds true, for one exhibit had about 500 pounds.

In regard to the space occupied by this "ten times as much comb honey," I figured this way: Two cases 5x25 each is 250 square feet; another case 5x10 (only one end and one side occupied) is 25 feet; total space occupied, 275 feet. The cases occupied by the other States and "foreign exhibit" (that means Ontario) are 5x25, or 125, and *if* my "early education in the rudiments of arithmetic is" not "impaired," 275 is not 3½ times 125, neither is it 2½ times 125.

I guess I'd better say "this is not a joke," either.

New York also occupies a case 5x10 feet with supplies, (not comb honey), mostly from Mr. Falconer and Messrs. Van Deusen & Sons, and it is a *fine* exhibit, and a credit to Mr. Hershiser and the exhibitors. Another case 5x17 contains some very fine colonies of bees that have gathered a goodly supply of surplus honey, but this exhibit is practically out of sight, as before mentioned.

Allowing New York to have 2 cases 5x25, and the one case 5x10 showing one side and one end, a case of supplies 5x10, and the case of bees 5x18, the total being 415 square feet, she still occupies less than 1½ times as much space as Ontario, which has a case 5x25, and a space of about 3x13 feet occupied by supplies, total 174 feet, and 2½ times that, according to my "early education in arithmetic," is 435 feet.

Again, I don't know, but presume, that the supplies exhibited in the New York case, are owned by the manufacturers, but being from New York are classed in her exhibit, and thus helps to make the grand total claimed by New York. Should Mr. Muth's exhibit of hives and extractors be included in the Ohio exhibit, as it should be, if New York includes the supplies, New York would then occupy but a little more than 2½ the space Ohio does; and if Mr. A. I. Root's exhibit of supplies (that are from Ohio, and were arranged by the Ohio superintendent), that occupies 136 feet, be included, New York would occupy less than twice as much space as Ohio.

Regarding the number of bee-keepers represented in the New York exhibit, Mr. H.'s article is its own reply, and leaves my statement correct.

In regard to the purchasing of honey by the State for exhibition, I see nothing dishonorable in bee-keepers loaning honey for a State exhibit, but, on the contrary, consider it quite commendable. Certainly no bee-keeper is entitled to any more credit for selling his honey to the State than he is when selling to any other party, and Ohio and other State bee-keepers are *not* "out of the use of their property for a year," as might be inferred from Mr. H.'s article the New York bee-keepers would have been if they had loaned their honey to the State.

I most frankly admit that when I said "my recollection is that neither Ontario nor Ohio has a section of honey on exhibition that is not better and more perfectly filled at the sides than is the best section in the New York exhibit," my "recollection" was 240 miles away from the exhibits, and was at fault, as the New York exhibit *does* contain a few better filled sections than are a few in the Ohio exhibit; but when Mr. H. says, "We would have no difficulty in selecting from our exhibit as many, or more, perfectly filled sections as may be found in those exhibits" (referring to Ontario and Ohio), he is certainly mistaken, as could be easily seen by any one.

The wood on the sides of the cases in the New York exhibit, being of the same width as those in other State exhibits, covers imperfections in the same way, and really *more* of them, for there are more to cover.

In regard to the "1,000 cases containing comb honey" which New York has on exhibition, and Mr. H. claims "would contain something over 12,000 pounds," I will say I have counted the cases and find 424 showing two sections each; 280 showing three sections each; and 266 showing four sections each, which, according to my "early education in ......arithmetic" makes 2,752 sections of honey (besides the 98½ pounds before mentioned) on exhibition. The cases *may* contain 15,000 pounds, for all I know, but if the cases *do* hold more than 2,752 sections, they are certainly not on exhibition any more than are a few hundred pounds of Ohio comb honey that are stored out of sight.

Now, Mr. Editor, it is possible that Mr. H. believes that what honey he has stored away and not in sight is on exhibition, while I believe that nothing but what is in sight is *on exhibition.*

I wish to say that I honestly believe that Mr. H. has done the very best he knew how in collecting and putting the New York honey exhibit in place, and is entitled to and has the credit due him for his earnest and faithful efforts.

If there is any evidence in what I have said that I wish to belittle any exhibit, or be boastful of Ohio's, I wish to say that I have no such feeling, being rather anxious that each and all shall have all the credit due them, and that that credit shall be very large indeed.

World's Fair Grounds, Chicago, Ill.

OUR
LETTER BOX
REPORTS
PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

A Beginner's Experience with Bees.

I purchased 5 colonies of Italian bees, and find it a pleasure to work with and handle them. I bought 2 golden 5-banded Italian queens, and had no trouble to introduce them. They are both good layers. I have now hives full of nice, yellow 5-banded bees from them, and, to say the least of them is to say they are capital workers.

I tell my neighbor that I would rather handle bees than hogs, although I raise quite a number of hogs on my farm every year, at a good profit. I think I shall have about 9 or 10 colonies of bees next year, as they have not cast any swarms this year yet. I have placed on my hives supers containing sections, and the bees are now filling them nicely. We are getting a good honey-flow now from heart's-ease and alfalfa clover. B. F. HARFORD.

Randall, Kans., Aug. 21, 1893.

Continual and Copious Honey-Flow.

The last spring was the worst one for bees ever experienced in this part of the country. Continued cold winds made it almost impossible for bees to fly to any purpose until June 1st. So unfavorable was it that they did not seem to get any appreciable benefit from the fruit-bloom, of which we have thousands of acres in this vicinity They did not begin to build up in strength until June 1st. But from the 1st to the 5th of June we seemed to pass from the cold of early spring to midsummer; and from that time until the present we had a continual and copious honey-flow.

There has been an almost constant crop of alfalfa in bloom; and for sometime past the bee-weed, or cleome, has been profuse in bloom. With hundreds of acres of these two plants within easy reach of our bees, it is not strange that they have boomed for nearly three months past, and that super after super must go on and come off in quick succession. The honey that I have secured is almost as clear as pure water; and this is the character of all the honey that I have seen gathered from either alfalfa or cleome in this vicinity.

My bees, which are mostly pure Italians or high-grade hybrids, have not been inclined to swarm, though some of the colonies are so strong that with two or three supers on the hive they appear so crowded as scarcely to have room to work. I should have preferred more swarming, as I wish to increase the number of my colonies. One colony that is mixed with Carniolan blood has recently sent out two large swarms. The first one that came out in less than three weeks has filled eight frames, shallow ones, with both honey and comb, and are now working in the other chamber.

I am selling my honey at 16⅔ cents per pound at my house. It retails at 20 cents per pound. L. J. Templin.

Canon City, Colo., Aug. 27, 1893.

Didn't Swarm in Four Years.

I had a queen that was 4 years old this August. The bees superseded her this month. I got 35½ pounds of honey from the colony. In the 4 years this colony of bees did not swarm. G. W. Nance.

Anthon, Iowa, Aug. 31, 1893.

Had a Good Honey Season.

We have had a good honey season in this locality. The white clover couldn't have been better, and basswood was a fair crop. I like the Bee Journal very much.

Martin Lastofka.

Neillsville, Wis., Sept. 4, 1893.

All-Wood Queen-Excluders.

I have had some experience with the all-wood perforated queen-excluders, but shall not use them any more whilst producing comb honey, as the perforations are not sufficient. I have used them between two brood-chambers whilst rearing queens in the upper story, with a laying queen in the bottom brood-chamber. I have made entrances in the top brood-chamber so that a young queen could get out to mate. The queens have mated and gone to laying, and the bees have stopped up all perforations in the queen-excluder, making two separate colonies of bees. When I would take one queen away I would take off the queen-excluder, and the bees would unite again. This is an easy way for any one that is working his bees for extracted honey, to supersede his old queens, or to improve his strain of bees.

My honey crop is a total failure this season. I have about 50 pounds of honey this season from more than 100 colonies. I had nearly 5,000 pounds last season by this time. I selected out about 200 sections of choice comb honey for the World's Fair, but some one got in our honey-house and stole it, and this season I haven't any to select from. We have only had one season so poor for honey in ten years. A. Coppin.

Wenona, Ills., Aug. 24, 1893.

Pretty Good Honey-Flow.

We have had a pretty good honey-flow in this vicinity, which ended Aug. 12th. I had 14 colonies, spring count, and extracted 600 pounds of honey, half clover and half buckwheat, from 8 colonies, being an average of 75 pounds each. The six others were nuclei, but are good colonies now for wintering. Jos. Beaudry.

St. Marc. Quebec, Aug. 31, 1893.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

Oct. 12.—Susquehanna Co., at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Dr. C. C. Miller....Marengo, Ills.
Vice-Pres.—J. E. Crane.......Middlebury, Vt.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with Bee Journal one year, for $1.10.

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, at its last meeting, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

The following Quotations are for Saturday, Sept. 9, 1893:

CHICAGO, ILL.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, white, 8c.; amber, 7c Beeswax doesn't move at any price. J. A. L.

CHICAGO, ILL.—We are having free receipts of honey and our sales are quite good. Up to now we have had very little surplus. Prices are 15@16c. for the best grades. Discolored combs and the darker grades generally are not meeting with any demand. Extracted honey sells at 5@7c., according to the color, flavor and style of package. Beeswax, 20@22c. R. A. B. & Co.

NEW YORK, N. Y.—Our market remains very quiet. Extracted continues to arrive freely; the market is well supplied, and the demand is light. We quote: Southern, common, 60c. per gallon: fair to choice, 65@75c. per gallon; California, 6@6½c. per lb. No new comb honey on the market as yet. Beeswax, gradually declining; 25c. for good yellow at present. H. B. & S.

ALBANY, N. Y.—Our honey market is steady. We quote: White comb, 15@16c.; mixed, 13@14c.; dark, 11@12c. Extracted, white, 7½@8c.; mixed, 7c.; dark, 6@6½c. White extracted honey should be marketed now while there is a demand for bottling, that is not later on when weather is cold and the honey chilled.
Beeswax, 25@27c. H. R. W.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

KANSAS CITY, MO.—Stock very light of comb honey. No extracted on the market. Demand is good. We quote; Fancy white, 17@18c.; No. 1 white, 15@16c.; fancy amber, 14@15c.; No. 1 amber, 14c.; fancy dark, 13@14c.; No. 1 dark, 13c. Extracted, white, 7@7½c.; amber, 6½@7c.; dark, 5½c. H. & B.

BOSTON, MASS.—Fancy white, 16@18c.; No. 1 white, 15@16c. Extracted, white, 7@8c.; amber, 6½@7c. Beeswax, 25@28c. B. & R.

CINCINNATI, O.—Demand is fair for extracted honey at 5@8c., with a good supply. Quite a number of small arrivals of nice comb honey found a ready sale during the last few weeks. Demand is fair. The close money market causes slow collections and makes itself felt on the demand of all merchandise, including honey.
Beeswax—Demand fair, at 20@23c for good to choice yellow. Supply good. C. F. M. & S.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days Fancy white conb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

CHICAGO, ILL.—We quote: Fancy selling at 16c.; choice, 15c.; No. 2, 13@14c.; poor, 12c. With prospects of a large crop, we advise early shipments to the market. Extracted selling at from 5½@7c., depending upon the color, flavor and style of package, and quantity the buyer will take. Beeswax, 22@24c. We have no stock on hand. S. T. F. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & CO., 14 & 16 Henuepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

See Our New Premium List on page 325, and then decide to get some of the premiums offered for securing new subscribers for the BEE JOURNAL. We want every one of our present subscribers to help us increase the number of our regular readers. Will you see what you can do toward it ?

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE — High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

Still the "Old Reliable."

FRIEND YORK.—Our advertisement in the "Old Reliable" AMERICAN BEE JOURNAL has brought us more orders than all the other bee-journals together. It seems as though it is what its name implies — *the Old Reliable.* We trust that you may continue yet many years to conduct the AMERICAN BEE JOURNAL.

LEININGER BROS.
Ft. Jennings, Ohio, June 24, 1893.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

Advertisements.

5-Banded Golden Italian Queens,
Either 3 or 5 Banded, each 75c.; 6 for $4.25
CHAS. H. THIES, Steeleville, Ill.
Mention the American Bee Journal.

Do You Need a Feeder?

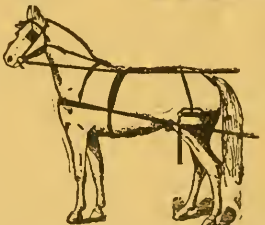
Best Bee-Feeder. Most convenient. Saves feed. No daubing or drowning Two to seven Feeders full may be given a colony at one time, which will be stored in the combs in 10 hours. Price, per pair, 30 cents; by mail, 40 cents; per dozen, $1.60. Has a sale of 2,000 per month.
Address, **JOHN P. WEIBLER,**
11Atf LOMBARD, Du Page Co., ILL.

READERS Of this Journal who write to any of our advertisers, either in ordering, or asking about the Goods offered, will please state that they saw the Advertisement in this paper.

ESTEY & CAMP
CHICAGO, ST. LOUIS,
State & Jackson Sts. 916-918 Olive St.
A Strictly Reliable Source for
PIANOS
—: AND :—
ORGANS
Of All Grades, Sizes and Colors.
Comprising the Celebrated
DECKER BROS.; ESTEY; BRAMBACH AND CAMP & CO. PIANOS AND ESTEY ORGANS.
Renting, Tuning, Repairing, Etc.

AT A BARGAIN!
OWING to a honey-dearth that set in just after basswood, I am compelled to double up my Bees, and will sell **Tested Italian Queens at 80c. each,** bred from best of stock, and safe arrival guaranteed.
Address, **C. A. BUNCH,**
NYE, Marshall Co., IND.

HARNESS
$5.50.

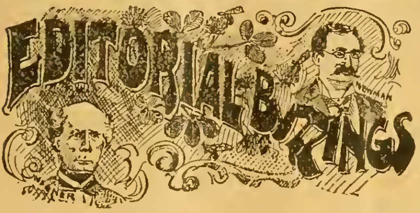


⅝ in. Box Loop. Bridle and good ⅞ inch Line. Breast Collar to buckle on trace. Traces one inch double stitched, 2½ inch Saddle, good shaft tugs and Belly Bands Strong Breeching. Oak-tanned leather. Well made throughout. Greatest bargain ever offered to harness users. We sell only this one style. If not just as represented, and entirely satisfactory, we refund your money. Cash must accompany order. Reference—Geo. W. York & Co. Address,
STAR HARNESS CO.,
Room 721—56 Fifth Ave., CHICAGO, ILL.
11Atf *Mention the American Bee Journal.*

ESTABLISHED IN 1861
THE AMERICAN BEE JOURNAL
OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., SEPT. 21, 1893. NO. 12.



The North American.—We received from Secretary Benton a long list of names of those who have expressed their intention of being at the Chicago convention on Oct. 11th, 12th and 13th; but it came too late for this number of the BEE JOURNAL. We will give it next week, with other names that may be sent in. It's going to be the biggest and best convention the North American ever held.

◆

Bro. W. P. Root is the very efficient stenographer and proof-reader in the office of *Gleanings*. Some time ago, Bro. A. I. Root purchased a lot of very ancient bee-books (some of them a good deal over a hundred years old), and Bro. W. P. has been reading them and writing condensed reports of what he has read, which reports are published in *Gleanings* from time to time. Although in a few instances some of the old apiarian authors knew a thing or two about bees, in the majority of cases it is shown that bee-knowledge in those days was exceedingly limited. Never, in the history of the honey-bee, were the mysteries surrounding it and its management, so well known and understood as they are to-day. The present is a wonderful age, in many ways. How fortunate are the living generations! Do we appreciate our advantages?

Mr. John Hilton, father of Hon. Geo. E. Hilton, was run over and killed by a railroad train on Sept. 5th, near Montgomery, Mich. Mr. Hilton was born in England about 73 years ago, and has been in this country 40 years. Some 36 years ago he settled on the farm upon which he lived at the time of his death. He leaves five sons and four daughters to mourn his terrible death. Our sincere sympathy goes out to the bereaved ones, all of whom we trust will so live that some day they may meet "father" in that eternal home beyond.

◆

Rev. B. D. Luther and wife, of Yellow Springs, O., called at the BEE JOURNAL office last week. Bro. L. combines Presbyterian preaching with bee-keeping, and says they go well together. He reports 117 pounds of comb honey from one colony this year, and that often he secures a crop of honey when his neighbor bee-keepers get none. So much for "knowing how." Bro. Luther is a very pleasant man to meet, is a member of the same Presbyterian synod as Father Langstroth, and has often met Apiculture's "grand old man."

◆

The New York State Exhibit of bees, honey and supplies has been pretty thoroughly advertised in the BEE JOURNAL, in the articles by Mr. Hershiser and Dr. Mason. On page 372 of this number will be found the closing article of the discussion, so far as this journal is concerned, as we do not believe that anything is to be gained by now devoting further space to this subject. Both Dr. Mason and Mr. Hershiser have explained matters pretty thoroughly, and when simmered right down, it mainly amounts to a difference in the way of looking at things, as we stated on page 296.

As Mr. Hershiser says on page 372, he simply furnished the principal items about the New York State exhibit, which *we* then used in preparing the editorial on page 137. In again referring to Mr. H.'s data, we see that, in speaking of the space occupied by the exhibit in question, 30x50 feet was the outside measurement of *all* the floor space occupied by the New York bees, honey and supplies, instead of *honey alone*, as we wrongly stated on page 137, when saying, "This enormous exhibit of beautiful *honey* occupies 3½ times the space," etc. Aside from this, we think there is nothing about that first editorial that has not already been corrected by either Dr. Mason or Mr. Hershiser himself.

We are glad to note the good feeling that exists between those concerned in this discussion, and as such is the case, there is another good reason for now terminating it, lest, if continued, good-nature, as well as good-feeling, might become marred. We are satisfied that neither Dr. M. nor Mr. H. intended at any time to cast a single reflection upon any exhibit whatsoever, and we know that we are anxious that all shall receive the utmost degree of credit which is justly due.

Bro. Alley Says, in the September *Apiculturist*, that an abundance of rain had fallen in Massachusetts, and the prospects for a fall honey harvest were very promising. They had a few weeks of dry weather, but not a severe drouth. Here in Chicago we had no rain for over 80 days before Sept. 12th and 13th, when we had several refreshing showers. The fall crop of honey will likely be a minus quantity hereabouts, as the rains came almost too late to do very much good for the bees.

The Number of Bees in a pound, according to Prof. B. F. Koons, of the Connecticut Agricultural College, is 4,832 of average size ones. So he reported in *Gleanings*, after careful weighing experiments. Thus it is pretty safe to say that, in round numbers, there are 5,000 bees in a pound.

Mr. G. W. Nance, of Anthon, Iowa, has sent us a beautiful bunch of golden-rod that his bees just roll in the honey from. It lasts about three weeks.

The Langstroth Fund, contributions to which are now reported in the BEE JOURNAL, we find is mentioned in a very complimentary way in the apiarian department of the September *California Cultivator and Poultry-Keeper*. It is also there suggested that another Langstroth fund be raised in Southern California. Why not raise it, and then send it on, to be added to the fund being raised by the BEE JOURNAL? Here is what the above paper says further about the matter:

> It is but a duty that we owe to one who has spent years of labor and much money in developing the science, and has been the means of elevating apiculture to the exalted position it now occupies in the scientific world. While we are reaping the benefit of his labor, let us aid in smoothing down his declining life.
>
> Langstroth, though in indigent circumstances, will outlive the millionaire, for
>
> On his tomb the chisel will trace,
> Great benefactor of his race.

Mr. C. E. Mead, a bee-keeper with about a dozen colonies of bees here in Chicago, has kindly presented to us a nice section of sweet clover honey. His crop, this year, was about 50 pounds per colony. The dry weather cut it short here, as in many other localities, which will also interfere not a little with the fall honey crop.

World's Fair Notes. — Saturday afternoon is our time to visit the World's Fair, and those who keep track of us pretty closely (Mrs. York, for instance), say that we never see anything but the honey exhibit, no matter how often we go to the Fair. We never have undertaken to disprove their statement, for we do not like to invite defeat, if it can possibly be avoided.

Now, we didn't start out to tell what others have to say of our visits to the Fair, but we did think we would report what progress the apiarian exhibits have made, so to the subject in mind.

On Saturday, Sept. 9th, as has become our custom, we took another peep at the bee and honey exhibits, and at the few bee-men that were still in charge of it.

Bro. Cutting expected to have the Michigan exhibit entirely completed by the following Wednesday, which was "Michigan Day." He has been hard art work, and his exhibit shows it. Michigan folks may well be proud of what he has done for them, and also of the exhibit itself.

The exhibits of Iowa, Indiana, Illinois, Nebraska, Minnesota, Wisconsin and Ohio were all nearly, if not quite, completed.

Dr. Mason, and his pleasant son, Ellis, were there to put the finishing touches on the Ohio exhibit.

Bros. Hershiser and Hastings were re-arranging the New York extracted honey exhibit, and also putting in place a number of excellent bee-appliances invented and manufactured by Bro. Hastings.

Bro. Pringle, and his winsome daughter, are still there, looking after the honey exhibit of Ontario. Bro. Pringle had just returned from the Province which he represents, with several hundred pounds of new honey for their already large and fine exhibit. Ontario knows how to "get there" as well as some other folks, when it comes to producing premium honey.

We expect shortly to continue the publication of illustrations and detailed descriptions of the various apiarian exhibits. But, of course, to fully appreciate them, they must be seen. Better come before the Fair closes. Only six weeks yet. Come so as to be here on Oct. 11th, 12th and 13th, and attend the meeting of the North American convention. See page 377 for full particulars.

Mr. W. S. Bellows, of Ladora, Iowa, called on us last week. He was in Chicago to attend the reunion of the regiment of which he was a member during our last war. Friend B. is one of the many old and honored veterans that are to be found now in the "ranks" of bee-keeping. We like to think of the old soldiers of to-day as so many "living monuments" that shall remind us of the loyalty and bravery of other and sadder days. Long may they live to enjoy the peaceful fruits of their heroic planting, is our wish.

Fifty-Four Queens by Mail, at one time, were sent to Australia by Bro. Root about the middle of August. He expected that nearly all would reach their destination alive, and in good condition. The business of sending queens half way around the world is now a decided success; not only has Bro. Root been successful in it, but other queen-breeders as well.

STRAY STINGS

From—
The Stinger.

A jolly, good Miller, who once was a "pill-er,"
Has now gone to grinding out "straws;"
In each one so funny, there's a drop of bee-honey,
And none of them have any flaws.

The Stinger has faintly heard a rumor that there will be two more bee-papers started during the next few months. One of them is to be away down in Texas, and the other in far-away California. The former, if it starts at all, is to materialize at the beginning of the new year; the other is to be launched upon a cold, and, perhaps, unappreciative public, the coming October, so the projectors state. The people who have planned these publications don't know what a hard time they have before them when they embark in the bee-publication business. As both enterprises are to be run in connection with the proprietor's supply business, the papers will serve as an advertising medium for the owner's wares. The Stinger does not wish to be understood as desiring to inject any vemon into the infant concerns at this early date, but, on the contrary, he wishes the projectors of the forthcoming papers all the success imaginable.

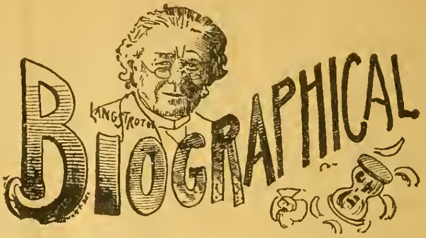
Dame Rumor states that the apicultural journalistic world is soon to have a female at the helm of a bee-paper. The Stinger does not apprehend any fur-flying operations, as long as there is but one woman wielding the pencil and scissors in the field of apicultural publication; just wait until there are a couple of the good sisters in the field, and then the fun may be expected to commence!

It is a long time since a woman essayed to edit a bee-paper in this country. I believe the last, as well as the first, was the *National Bee Journal*, which was in the hands of Mrs. Ellen Tupper. This woman was quite prominent in apicultural circles for a number of years. She wrote extensively upon bee-topics, and did a large business in queen-rearing, I believe. Through loss by fire and financial troubles, she was obliged to retire from business. For a tine she was out of her mind, if I remember rightly. She died a few years ago while on a visit to a relative in one of the Southern States—Texas, I think.

California is not a new field for bee-papers. It is over a decade ago that the first bee-paper was started there; since then two others were sent forth to battle with the waves of the tempestuous sea of journalism, and they had all to succumb after a short existence. Those started in the past were published outside the great honey-producing sections of that State, so there is hope for the forthcoming California bee-paper to do something more than come into life, and, butterfly-like, die in a short time. If any part of the Golden State is by nature the home for a bee-publication, it is Los Angeles. It is in that city of the angels, so the rumor goes, that the new candidate for the favors of the apicultural argonauts is to be born and published. Though the field it will have to labor in is a limited one, and hardly sufficient to support a paper of its kind, still The Stinger hopes that it will be able to realize the most sanguine hopes of its publishers.

How the Stinger would like to get after that Celestial correspondent of the AMERICAN BEE JOURNAL! If I wouldn't puncture him right and left in a way that would out-do the method the said Wung Lung took to cure his fellow countryman of rheumatism, I have lost my cunning. The place to hurt a Chinaman, like almost any one else, for that matter, is by getting at his pocket. But the way I would get at Mr. Wung Lung, in a way that would drive him from keeping bees, is this: I would manage to get his bees crossed with Italians. From some practical experience I have had I know as a fact that Dagos do not like the Celestial "monkeys." Give an Italian a fair chance, and he would fly at a Chinaman's throat. It is for this reason that I think that an Italian bee, which would like to keep up the reputation of its country, would go for the Mongolian in a way that would leave the owner in possession of the field. In making these remarks I do not wish to speak in any way disrespectful of Mr. Wung Lung, who, for aught I know, may be a very excellent gentleman. I have made reference to the matter wholly in the interests of our white bee-keepers, who, no doubt, would like to see the field kept exclusively to themselves.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.



Officers of the New South Wales Bee-Keepers' Union.

On the opposite page we are afforded the pleasure of presenting an interesting group of eight of the most prominent bee-keepers who live in New South Wales, Australia. We are very certain that all of our American readers will be delighted to thus form the acquaintance of their far-away brethren, even though that acquaintance be at very long range. We have a number of subscribers in Australia, as well as in almost every other known foreign land, and we are glad to have the opportunity to see some of them, even if it must be only on paper. Some time we hope to meet them all face to face, though it may never be upon earth.

Without further delay, permit us to introduce you to each one of our Australian brethren, by way of a brief sketch:

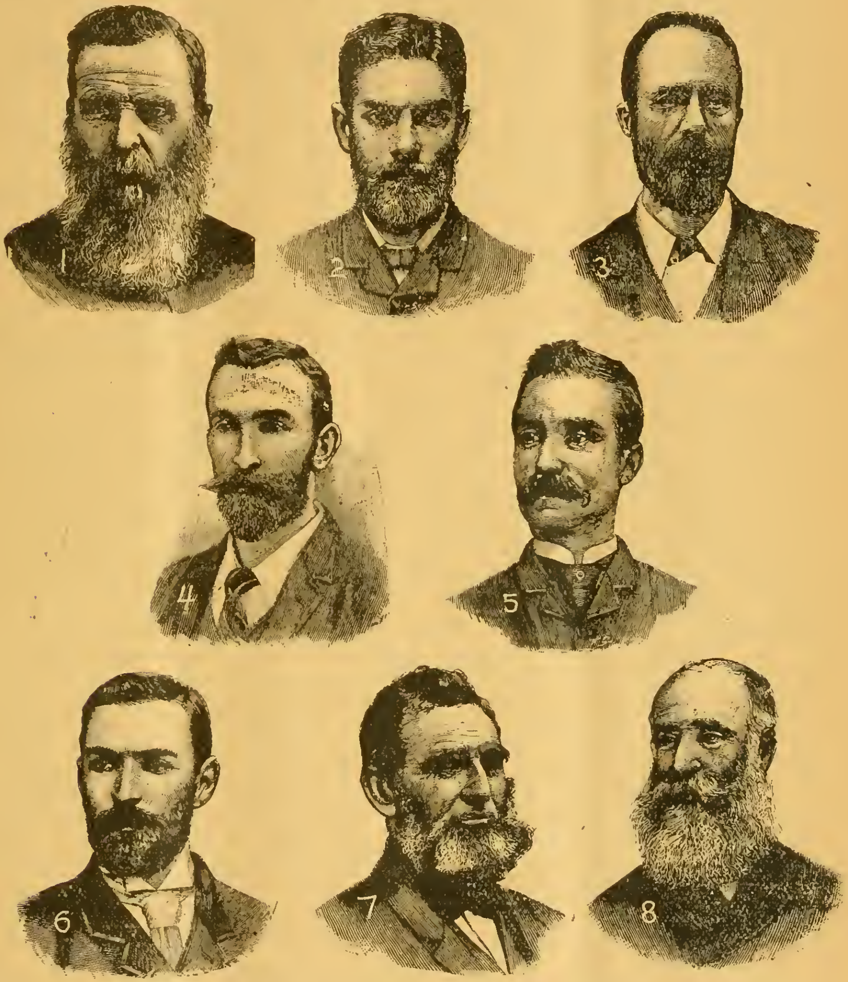
No. 1.—The Rev. J. Ayling, Vice-President, started bee-keeping in South Australia in 1858, and for the last eight years he has kept bees rather extensively, his object being to instruct his neighbors in the art, and help them to increase their rather scanty incomes. He uses the Langstroth hive, with Hoffman's frames, and last year he produced about a ton of honey.

No. 2.—Mr. W. S. Pender, of West Maitland, Vice-President, started bee-keeping in 1880, but did not make a business of it until 1889, when he increased to 20 colonies. In 1890 he increased to 40 colonies; in 1891 to 50, in which year he took the first national prize. In 1892 an out-apiary was started in Mulbring, which now numbers 50 colonies. He is assistant editor of the *Australian Bee Bulletin*.

No. 3.—Mr. J. E. Taylor, Vice-President, commenced bee-keeping 15 years ago in Cowra, but pressure of business compelled him to relinquish the pursuit. About seven years ago he made a fresh start, and now has 140 colonies at that place, and 150 at his out-apiary at Coota. Season before last he obtained about eight tons of extracted honey, and 1,500 pounds in sections. He uses the Langstroth hive. He secured the second national prize in 1891, and the first in 1892.

No. 4.—Mr. J. Trahair, Treasurer, is manager for Messrs. Hebblewhite & Co., with which firm he has been for the last ten years. He has taken a great interest in bees, and, perhaps, more especially in their homes, having commenced importing bee-hives and appliances from America some years ago. He keeps a small apiary at his private residence, Stanmore, principally for experimenting.

No. 5.—Mr. C. Mansfield, of Largs, who was Secretary of the recent conference in Sydney, N. S. W., has kept bees more or less for the last 15 years, but some years ago it was his good fortune to obtain the original edition of Lang-



Officers of the New South Wales (Australia) Bee-Keepers' Union.

stroth's book on bee-keeping, which he read with avidity and delight from cover to cover. Almost immediately he made his first attempt with the bar-frame hive, but he was not at first successful. About five years ago he commenced the work of scientific bee-keeping in real earnest. Finding such an absorbing pleasure in queen-rearing, and being so admirably located for the purpose, his chief attention is devoted to that section of the bee-keepers' art. The famous Ligurian, or leather-colored Italian strain, is exclusively reared. The Hunter River apiary now numbers over 100 colonies, and was awarded a highly commended certificate by the Government, both in 1891 and 1892. He regularly makes importations from Italy for the purpose of maintaining the character of his bees.

No. 6.—Major Shallard, Secretary of the Union, commenced bee-keeping in 1882, at Granville. In 1886 he purchased the Blue Mountain Bee-Farm, at Glenbrook, which contained 160 hives; in 1887 he started an out-apiary at Seven Hills of 200 colonies; in 1888 he started a home depot in Sydney to dispose of his crops; in 1889 he started another out-apiary of 200 colonies, and at present has 850 colonies. He never exhibits at shows, or competes for the national prizes. He was instrumental in starting the New South Wales Bee-Keepers' Association in 1886, and of which he is at present Secretary.

No. 7.—Mr. R. Scobie, M.L.A., President, may be said to have grown up with bees around him, his father having kept black bees on their farm since 1839, when he used to get £5 per swarm for them. He has always taken a lively interest in the bees, but his well-known orchard on the Hunter River has prevented him from doing much active work with them. He was elected President of the Hunter River Bee-Keepers' Association in 1887, and has been annually re-elected since. His father, who is in his 91st year, claims to have been one of the first, if not the first, importers of bees into the colony.

No. 8.—Mr. Albert Gale, Vice-President, is another old bee-keeper, having kept bees in the old straw-skep in Monmouthshire, in 1858. About 25 years ago he kept bees on the Clarence river in gin-cases and boxes, using the old-fashioned 6-pound boxes as a super. From there he moved to the Monaro district some 18 years ago, taking his bees with him, and eight years later he located at Gordon, near Sydney, where he kept some 18 colonies in Berlepsch hives, which, however, he eventually discarded in favor of the Langstroth. He was appointed apicultural lecturer by the Government in 1889, and has been doing useful work for the bee-industry ever since, his lectures drawing crowds, and embracing the whole colony.

Major Shallard, the Honorable Secretary of the recently formed Bee-Keepers' Union, kindly sent us the photographs of the group of officers, and said that when the association is in "full swing," it will have a membership of about 500. It is the most important society of its kind in Australia. We wish it every success imaginable.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

When to Move the Hives Lower.

I have 8 colonies of Italian bees placed on benches two feet from the ground. I want to place them on the ground, or rather on sawdust. When is the best time to change them, in the fall or in the spring? I think the BEE JOURNAL is the very thing for beginners.

Listonburg, Pa. L. M. LININGER.

ANSWER.—Care must always be taken in moving bees from one location to another, but as you intend to leave your bees on the same location, merely lowering them, no such care is needed, and you can let them down at any time that suits your own convenience. After the hives are lowered, there will be a good deal of confusion among the bees flying around the places where the entrances formerly were, but after a little each bee will settle down to its own hive, that being the nearest to the place it is accustomed to.

Symptoms of Foul Brood.

I have read a great deal in the BEE JOURNAL about foul brood, and it is very important that I should know, while walking through my apiary, whether my bees have foul brood or not. What becomes of a colony having foul brood? What are the symptoms?

Rodney, Mich. J. W. MILLER.

ANSWERS.—We do not know that any one has ever given a way whereby, in walking through an apiary, you can detect the presence of foul brood. Indeed, those who seem most familiar with it do not seem entirely agreed as to what foul brood is, even when the hive is open before them.

If you find a very bad smell on opening a hive, and then find holes in the center of the cappings over brood, and on opening a cell find the larva rotten, of a dark color, and of a ropy character, so that on thrusting into it a toothpick and then withdrawing it, the rotten brood will string out, then you will do well to get out your bee-books and study up on foul brood. A good deal has been said about it on these pages lately.

As to what becomes of a colony having foul brood, if nothing is done for it the general opinion seems to be that it will go "where the woodbine twineth."

Dissatisfied with Their Queen.

On Aug. 10th I placed a queen in a hive, removing the queen then in the same. She was in very poor condition when received, in fact nearly dead, and not one live bee in the cage with her; but I fed her and placed her on the comb, and protected with a "box-lid" cage. On Aug. 14th I released her, and the bees received her. On the 30th, in looking through the hive, I found seven capped queen-cells. These I cut out. I found considerable eggs in the combs. To-day, Sept. 2nd, I find two cells nearly capped. I found the queen, and saw that the last joint of the right hindmost leg was off. The colony is not extra strong. What do you suppose is the matter? I find some sealed drone-larvæ, and one cutting away the capping of his cell.

The queen's leg was off when she was received. I then thought it would make no difference. The swarming season has been over nearly two months.

Fair Dealing, Ky. D. L. NELSON.

ANSWER.—Clearly, the bees are not satisfied with their queen. As the queen was nearly dead when you received her, she probably never entirely recovered, and so the bees took steps to replace her. The loss of a leg need not prevent a queen from doing good work. We have known several five-legged queens, some of them cripples from birth, some of them crippled by accident, but all good layers.

In Sunny Southland

CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Always Take and Read Bee-Papers.

MRS. ATCHLEY:—After I have taken a bee-paper, and read all the bee-books, and have learned to make a success of bees, could I not just as well leave off my bee-paper? or, of what use is a paper after we have made a success?

SUBSCRIBER.

Friend Subscriber, aren't you joking a little? Now, if you are energetic enough to read the papers and bee-books until you made a success of bee-keeping, you have too much energy to quit reading; you would be a backslider in less than no time, and it would likely take twice the amount of preaching to get you restored. Why, by no means ever think of leaving off that which has brought you up to where you are. I tell you, without the influence of the papers, we would soon run down, surely. I would not do without my bee-papers, if they cost me four times what they now do; and, in fact, I do not know of any kind of a paper but what is worth its subscription price. Stick to your bee-papers, and you will learn more and more, keep posted, and make your bees pay better.

JENNIE ATCHLEY.

Bee-Keeping in Missouri.

MRS. ATCHLEY:—Bees wintered well here last winter; there was no loss with some bee-keepers, while others lost 5 per cent. or less. The spring opened cool and wet, The maple and elm are the first bloom in this State for bees to work on. This was entirely lost by the long, cold and heavy rains. The fruit-bloom, which comes next, was lost in the same way. Then set in, in earnest, what is known as spring dwindling. Some bee-men lost 50 per cent., while others lost all they had. The only remedy was feeding for two months; where this was neglected, those that did pull through were so weak that they would store no surplus honey.

Heart's-ease, smartweed and Spanish-needle are blooming nicely. These are the best honey-plants we have here.

I began bee-keeping in Effingham county, Ills., in 1849, and sold out there and moved to Putnam county, Mo., in 1853. In 1854 I started out in the old-fashioned log-gum way. I kept bees for pleasure and profit until 1869, when I sold out and moved to this (Bates) county. I went into the bee-business with varied success until 1886, when I sold out again, but did not move away, as I had intended. I bought property in this place, and am likely settled for life.

Last July 4th it was four years since I had cut a large sycamore tree in the Osage river bottom, and got my present start of bees, which consists of 90 fine colonies in all, of four different races. I am dropping all but two—the Italian and Albino. I sent to nearly all the leading queen-breeders, and some that were not, and got from one to twelve queens from each. This has changed my black bees to as fine bees as—yes, I am going to say it—as there is in the United States.

I have used several kinds of hives, but I now use the Gallup hive altogether, with good results. W. A. McGee.

Rockville, Mo., Aug. 19, 1893.

Bees and Poultry in Bell Co., Tex.

The Belton *Reporter*, of Bell county, Tex., republished the following from the *Texas Farm and Ranch*, about a noted bee-keeper and poultry-raiser in Bell county:

While in the city of Belton, Mrs. S. E. Sherman, known as one of the most energetic, persevering, plucky ladies in Texas, gave me a very hearty and cordial invitation to ride out to the town where she lives, on a visit to her neat little home, which I readily accepted.

Mrs. Sherman's beautiful little home is located in the suburbs. Everything about this home is neatly and tastily arranged. The bee-hives in the apiary are arranged in beautiful rows with nice walks between them, so that each colony can be easily reached from every side, and every hive is so tastefully painted that the sight is really charming. It was quite a curiosity to me to go from room to room and be introduced to the latest and most improved bee-fixtures, honey-extractors, wax-extractors, hives, frames, and, in fact, everything needed in a first-class apiary.

Seeing how nicely and easily bees can be handled, and seeing them feeding and "clothing" themselves, and laboring so industriously for their mistress, without one word of complaint, made me wish that bees did not have stings, for then I am sure I would pitch into the bee-business up to my eyes.

But Mrs. Sherman's poultry yards had such an attraction for me that my eyes kept turning in that direction, and at last we turned towards them, and soon I was bowing and smiling, and talking to the chickens. The pens were for convenience, health and beauty, the equal, if not the superior of any that I have seen in the State. The White Houdans were indeed a curiosity, as they are the only White Houdans on record. Mrs. Sherman has five pens, including Houdans, White Houdans, White Crested Black Polish, S. S. Hamburgs, and Black Langshans. To these, as well as to bees, Mrs. Sherman is giving the very best of attention, and is making a grand success of both.

The evening was pleasantly spent, and the next morning we drove up on the top of College Hill, where a fine college building is located, and there we enjoyed the beautiful scenery surrounding it. We next drove down to the clear, sparkling river, and there drank from those wonderful springs as fine water as can be found in Texas. These springs are superior to the famous San Pedro Springs of San Antonio. Bell county, taken as a whole, ranks among the best counties in the State. Uncle Snort.

Pleased with Half-Pound Sections.

I am very favorably impressed with the half-pound sections. By mistake I bought 5,000 4¼x4¼x1½ sections, and I have been using some of them. I just place eight of them in a Langstroth frame, and hang them in the upper story. I also use them for side-storing in the brood-chamber, and it works well. The sections sell as fast as we can hand them out at 10 cents each. I believe I could sell 50,000 of them if I had them now.

The bottom row in the frames of side-storing have more or less pollen in them, but we use them on the table, as we do not object to a little pollen. But the top row contains just as white and solid honey as any sections I ever saw. I use no separators, and my sections are all nice and straight, and weigh just about 9 to 10 ounces when full. I believe I shall try quite a lot of them next season. I know they cost just the same as one-pound sections, but if we have them made to hold just a half-pound, they will bring 10 cents every time in our markets, and 20 cents per pound will make up the double price for the sections. Then, they are so cute, and sell so readily.

JENNIE ATCHLEY.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

Oct. 12.—Susquehanna Co., at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Oct. 18-20.—Missouri, at Pertle Springs, Mo.
P. Baldwin, Sec., Independence, Mo.

Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.......Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

The Great Chicago Fire.—No visitor can properly appreciate the Chicago of to-day—wonderful city that it is—without first viewing the city of 22 years ago from the platform of the great Cyclorama Building, on Michigan avenue, near Madison street; see the frenzied flight of the terror stricken multitude, gaze upon the thousands of burning buildings, falling walls, and smoking ruins. The great canvas tells the immortal story of the Chicago Fire more graphically, thrillingly and truthfully than could be done by a whole library of books. Here are some figures to remember:

Number of acres burned per hour, 125.

Number of buildings burned per hour, 1,000.

Number of people rendered homeless per hour, 6,000.

Value of property burned per hour, $12,000,000, or a million dollars every five minutes.

Loss, over $200,000,000.

People homeless, 100,000.

Number of lives lost, unknown.

If all the buildings burned in Chicago were placed end to end, it would make an unbroken row 150 miles long!

Don't miss seeing the "Chicago Fire" Cyclorama when in this city. You will never regret it, once you look upon it.

Bee-Paralysis and the Queen.—In the August *Review*, the editor writes as follows:

> When discussing bee-paralysis with Mr. Taylor, this season, he mentioned one fact that goes to show that it comes from the queen. A neighbor called and wanted a queen. Mr. Taylor had none to spare except the one in a colony affected with paralysis. He was going to replace this queen, and told the man he might have her until he could spare some other queen. If she turned out all right, well and good—if not he would replace her. When her bees began to hatch out in the colony to which she was introduced, and to take their places in this work-a-day world, the colony became affected with paralysis.

The Louisiana Hotel is the place where the North American bee-convention will be held on Oct. 11th, 12th and 13th. See the advertisement of the hotel on page 324 of this issue of the BEE JOURNAL. Any of our readers who may be coming to the World's Fair before the convention is held, would do well to "put up" at the Louisiana Hotel. Full information, on page 324.

Have You Read page 357 yet?

Queries and Replies

Best Covering for Over Frames in Winter.

Query 889.—What do you consider the very best covering for frames in winter, regardless of cost?—Iowa.

Indian-head muslin.—Mrs. L. Harrison.

Quilts made out of burlap.—J. P. H. Brown.

I believe wood is as good as anything. —A. J. Cook.

Use a straw mat, or some other pervious texture.—Dadant & Son.

Probably a mat made with ground cork, or cork shavings.—Eugene Secor.

Enameled cloth, with a good non-conductor on top of it.—H. D. Cutting.

A sheet of best cotton-cloth, and a 4-inch deep sawdust cushion.—G. M. Doolittle.

I don't know. Possibly a very thin board with a pile of bed clothes over it. —C. C. Miller.

Burlap, covered with sawdust or shavings to a depth of six or eight inches.—J. H. Larrabee.

A flat board cover is good enough for me; perhaps a large bag off chaff might be better.—R. L. Taylor.

We use a solid honey-board, with straw or chaff cushions over them. We winter our bees on the summer stands. —E. France.

A cushion of dry, powdered leaves. The point with me is something *porous*, with outlet in cover for all dampness.—Will M. Barnum.

A "duck" spread, with five inches of chaff above. Put four or five corncobs crosswise on the frames, before putting on the spread.—Mrs. J. N. Heater.

An inch board; but it is not always the most convenient. With my method of placing a cake of sugar candy on top of the frames, a cloth and a half dozen old newspapers are better.—Emerson T. Abbott.

Pieces of old rag carpet are as good as anything. Three or four inches of chaff, or dry absorbent of any kind on top of it, makes a nice winter cover. Sealed covers are a failure with me.—C. H. Dibbern.

A piece of old carpet, with five or six inches of forest leaves pressed in over it. This, if a large entrance is given, will allow moisture to pass off imperceptibly above, retain the heat, and ventilate the hive sufficiently.—J. E. Pond.

In this climate (Ky.) a solid board made of soft wood—poplar or pine—put on in time for the bees to glue it tight, over which a second cover goes to keep all dry. A "cloth" will do, but you ask for the *best*.—G. W. Demaree.

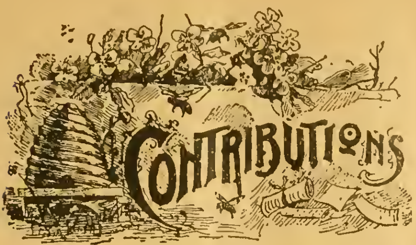
In this country (Texas) common duck, stretched on a board, and one side dipped in melted beeswax. Place on the hive waxside down, and it is not only best for winter, but for all times, as the bees do not cut holes in them.—Mrs. Jennie Atchley.

That depends upon the hive, and whether wintered in-doors or out. Out-doors I should use a quilt cover with a few inches of buckwheat chaff; in the cellar, we use a quilt cover with a board. In a very damp cellar the board might be left off, if the quilt is thick.—P. H. Elwood.

I expect that cork shavings is the very best. My plan is to fill the spaces between the frames with strips of wood so as to keep the bees below the top-bars; put burlap over the tops of the frames, and on the burlap three or four inches of dry sawdust. I think that passages *over* the tops of the frames are worse than useless for out-door wintering.—M. Mahin.

Late years I have about come to the conclusion that anything which will make the top of the hive air-tight is all right. Enameled cloth or wooden covers made tight with bee-glue during warm weather, and left on undisturbed through the winter, have given good results. Some will tell you that tight covers will be death to the bees, and others just as emphatic that the porous covering will kill them. What would be the very best covering for winter would depend upon what condition the bees were in, where to be wintered, etc.—S. I. Freeborn.

A Binder for holding a year's numbers of the Bee Journal we mail for only 50 cents; or clubbed with the Journal for $1.40.



Wintering Bees on the Summer Stands—How to Do It.

Written for the American Bee Journal
BY J. E. POND.

Winter preparation of bees is now in order, and in writing on the subject, I draw solely from my own experience and experiments, and will say in regard to them, that during the thirty years I have been engaged in keeping bees, wintering them only on the summer stands, I have not met with 2 per cent. of loss. The great and only secret in my own locality, where the temperature ranges from 30°, Fahr., above, to 20° below zero, is ventilation, with ample stores so placed that the colony can at all times have access to them. Cold, of itself, doesn't kill bees; lack of stores, and excess of moisture, will kill them every time. If these propositions are true, and I believe them to be so, the question of safe wintering is only a matter of such preparation as will insure plenty of stores and lack of moisture.

I will state briefly my manner of preparation, and the success I have met with is proof to myself that it is the correct one.

I use a 10-frame Langstroth hive, leaving but 9 frames in the brood-chamber for winter use, evenly spaced; each frame being at least ⅓ filled in its upper part with sealed stores. Over the frames I place a Hill's device, or its equivalent, covering the same with a piece of old carpet or other porous material, with 6 or 8 inches of forest leaves pressed loosely down upon this covering. For ventilation, I give the whole entrance. By this means I get downward ventilation, which I claim to be the only true ventilation for a bee-hive. The excess of moisture imperceptibly passes off through the top of the hive, preventing the formation of frost, which frost I believe to be the chief cause of loss. The bees can pass over the tops of the frames to any part of the hive, and thus gain access at all times to their food.

I have used double and single walled, and chaff hives, and find little difference in them as to loss. In fact, I have wintered 4-frame colonies, in hives made of ½-inch stock, with safety.

I believe the above ideas to be correct in theory, and I have proved them to be so, year after year, in practice, and have no hesitancy in advising all who winter bees on the summer stands to adopt them, unless they have some simpler and safer plan of their own.

North Attleboro, Mass.

Something About Utah and Her People.

Written for the American Bee Journal
BY E. S. LOVESY.

Of late I have been asked many questions by bee-keepers, concerning Utah and her people, and some of the queries, to say the least, are somewhat amusing. Some of the writers, after stating that they had read with much interest the little that I have written for the BEE JOURNAL, express a strong desire to hear something more of our country. To show the peculiar ideas held by many of the people in the East, in regard to this country, among the questions I have been asked, are the following:

Is polygamy practiced in Utah now? Do bishops take other men's wives from them? How many wives can a man have? Do they all live in the same house? Do they live in peace? When a man dies, can the widow marry again?

Well, really, I might ask, what do you take us for? It reminds me of an incident that occurred here 30 years ago. In 1863, some California emigrants were passing through this city. A little girl and her mother were on the main street viewing the sights; with some astonishment the girl exclaimed, "Ma, where are the Mormons?" The lady answered, "Why, my dear, these people you see on the street are all Mormons." With surprise the girl replied, "Why, papa said that the Mormons had horns on them!"

This was bad enough 30 years ago, but now, at this late date, I sometimes wonder where we are drifting. It seems to me that we ought to have grown and progressed into more enlightened ideas ere this. If I were asked the above questions by people in Asia, I would not feel surprised, but it does seem strange that so many of our own people will believe a sensational story rather than listen to reason.

In regard to the polygamy question, it has always been more of a bugaboo in people's imaginations, than anything else. While people were free to practice it or not, they never kindly took to it. I never knew a time in the last 30 years that more than 5 per cent. of the people practiced it, and when the church and the people voluntarily abandoned it in the fall of 1891, I do not think there was one per cent. of the people that practiced it.

Of course, if a man died, if he left one or more wives, they were free to marry again. They did not have to wait until he died; if they were not satisfied, they could get a divorce and marry again. Some do this even now, when there is no polygamy, but they are few and far between. If people marry for love, and are kind and sincere in their married life, they need no divorce, as they live above the law. The people here seem much relieved, now that they are rid of this question. There have been a few rabid agitators that have kept the country in a perpetual boil or ferment, but it is pleasant to reflect that their occupation is gone; and as the people in Utah are sociable and industrious, the more they become known the more they will be appreciated.

In answer to the question whether more than one wife lived happily together in the same house, I can say that I have known several instances of the kind, where they lived happier than the general run of people with one wife; but in some instances it was the opposite. Could you expect it otherwise? As it is not natural, therefore it did not always bring happiness in the home. Some people say that the people here are not happy. This is incorrect. They have as much cause to be contented and happy as any people. There are more people here who own their own homes than in any other place in the Union. We do not have very many rich people, neither have we many very poor folks.

All over Utah, as the people came here and settled the country, each valley and stream was surveyed, and an estimate made as to how many families could live on, or occupy, the land and water. Each family received 20 to 25 acres, and the people each took their pick to the limited amount until the whole of it was occupied. Through this system being inaugurated, most of the people own their own homes. This is one reason why the people of Utah, if they are not moderately happy, ought to be. Many places are bought, sold and exchanged, and there is some land that is not settled yet. As a rule, the land is fertile, and the climate good. In the north, the soil is good for grain and roots, and in the south tropical fruits can be grown.

The authorities of the Mormon church, and the great Mormon choir, start to Chicago this week, to attend the World's Fair, and to compete for the grand musical prize of $5,000, which is offered by the Fair. I think it is possible that this trip will be productive of some good —it may have a tendency to dismiss some prejudice that may still linger in the minds of some people, and perhaps, after a while, some of the people may be led to believe that those who live in Utah are not so barbarous a lot as they have been led to believe we are. Many people are astonished when they come here, and visit the large tabernacle and hear this choir. They are very cheerful and pleasant people. There is another good choir of 1,000 young people led by the same leader, Mr. Evan Stevens.

Salt Lake City, Utah, Aug. 29, 1893.

The Cure of Foul Brood Still More Fully Explained.

Written for the American Bee Journal

BY WM. M'EVOY.

In the honey season of 1875 I took out the diseased combs, and let the bees build new combs in many colonies. In some of these it was a successful cure, and in others it was a complete failure, although they were all done at the same time. The honey-flow was good at the time, and the bees made combs very fast, and soon had larvæ in them. *The colonies that were bad when I took the diseased combs from them were the ones that it failed on.* I then let the bees build combs for four days, and then took them away, and let the bees build new combs the second time; *in every case this made a complete cure.*

In the AMERICAN BEE JOURNAL of Sept. 7th, page 307, under the head of "Some Hits and Misses," I saw a big mistake about half way down the column. It reads: "The colonies that were not bad when I took the diseased combs from them, were the ones that it failed on." It should read the colonies that *were bad* when I took the diseased combs from them were the ones that it failed on. The word "not" spoiled what I was explaining, because those that were not bad were the ones that it made a complete cure of when they were left to build new combs.

Where the bees of an apiary of 25 or 30 colonies are in a horrid state with foul brood, and the bees are put in empty hives to build their own combs in the time of a big honey-flow, it will end in a failure in many of the colonies, because at such times the bees will build combs very fast, and store some of the diseased honey in them, that they took from the old, foul combs when they were removed. So, to make a complete cure in all bee-yards, I order all combs removed at once, and starters of comb foundation given for four days, and at the end of four days they are to be taken out and full sheets of foundation given; *which never fails to cure when both the starters and foundation were given to each colony, and all treated at the same time.*

Foul brood has been very bad in Ontario, and I am still finding it in large quantities in places where every one thought his locality was clear. In a small town where bee-conventions have been held time and again, I found the worst foul-broody bee-yards I ever saw. I was astonished, after all that has been published on this subject, to see that any sensible men would for one moment nurse a lot of rotten brood of any kind. I blame the professional guessers for the most of this state of things, because they have led the people astray by saying that colonies kept with rotten brood won't sooner or later end in foul brood. That sort of teaching has caused bee-men everywhere to be very careless, and when foul brood breaks out in their bee-yards, it makes a rapid headway, and ruins the whole apiary in a short time, and all other bee-yards near it.

Why don't the professors step to the front and do one useful act, and advise all bee-keepers to keep dead brood out of their hives at all times? Everywhere that I have been in Ontario, I have advised the removal of all dead brood at all times, and explained to the owners that brood after brood rotting in the same cells, and having to consume food mixed with corrupt matter, takes life and ends in foul brood. I have made a big change in public opinion on this, and have many of the best bee-keepers in Ontario on my side on this very point. I have also many letters from the United States saying that I am in the right.

I wish to thank the editor of the American Bee Journal very much for publishing all my articles on foul brood, as it saved me answering all the letters I have received on this question.

Woodburn, Ont., Canada.

How to Prepare the Bees for Safe Wintering.

Written for the American Bee Journal

BY J. H. ANDRE.

From the reports of last season probably more bees perished during winter than any season ever known before, and right here I wish to say that more than one-half of such losses were the result of carelessness. If those few who have sent the idea afloat that it is not so much in *wintering* as it is in *springing*, had advised against autumn carelessness, they would have hit nearer the mark.

During the past seven years I do not recollect losing a single colony. The first thing to do when preparing a colony is to ascertain if there is plenty of honey—not old, granulated honey, but that gathered the present season. In order to secure this, I strive to have all used up in the brood-frames the spring before. This is done by spreading the brood, interchanging frames from one hive to another, etc.

The brood-nest should be in the center of the hive. If any colonies are lacking in bees, I get them of my neighbors by drumming them from the box-hives they intended to brimstone, and right well pleased they are to get the job done, and avoid the brinstone odor in the honey. One colony will build up from two to three weak ones. This should be done from the 1st to the 15th of October in this vicinity. There is scarcely ever any danger in uniting, if smoke is used.

I never feel safe unless each colony contains a peck of bees. One with four quarts of bees may winter all right, but will be so late in building up in the spring that it will store but one-half the surplus, in some localities.

Use either a Hill's device over the frames, or two strips of wood ⅜ of an inch square, reaching nearly across every frame, with a passage between the strips. Spread a *new* piece of muslin over the frames. Take a bottomless box, 4 or 5 inches deep, tack on a muslin bottom, leaving it loose enough to sag down, and cover every part of the frames, when the edges of the box rest on the hive.

Fill the box with the muslin bottom

with *buckwheat* chaff, pressing it down gently over every part of the frames. The chaff should be medium fine, not dust, nor too coarse. A super will answer to hold the chaff and both thicknesses of cloth laid on the frames, but if the muslin is nailed on the box or frame, it avoids a mussy job when examining a colony early in spring, when the chaff must be placed on the frames again. If the chaff is left uncovered except with the cap, and the cap does not fit too tightly, the moisture will pass off better.

Have the hives where the sun will warm them enough to prevent the bees dying from starvation, which is commonly called "freezing to death."

In this latitude the entrance should be left from 6 to 8 inches wide, *in the center of the hive*, except on very cold nights when it may be partially blocked with a little snow, which will melt and run away when the weather moderates.

These rules are for single-walled hives. Double-walled hives I have never used; the reason why, I have already given several times. Bees in box-hives may be wintered by this method, so far as the chaff is required, if several holes are bored in the top of the hive.

Lockwood, N. Y.

The New York State Honey Exhibit at the World's Fair.

Written for the American Bee Journal

BY OREL L. HERSHISER.

I wish to reply briefly to a few of the statements made by Dr. Mason in his answer to my article on page 309.

Regarding the statement in the third paragraph of Dr. M's article, to the effect that the editorial was mine, I beg to state that I simply furnished the *facts* and *figures*, to the best of my ability, without use of rule or scales. I also furnished the names of exhibitors, and those who were *represented* and expected to send in exhibits, and I believe I made the statement to the editor that all these had *not* sent in their exhibits, but *expected* to, and for that reason were *represented.* I did not write the editorial, therefore it is not mine—only the *facts* and *figures* of it are mine, and the remark on page 342, that "this was not a case where the crooked was made straight," still has the application there intended.

Regarding the floor space of 30x50 feet also referred to in the third paragraph of the Doctor's article, I would say, the honey exhibits at the World's Fair are said to occupy the space in the south portion of the east gallery of the Agricultural Building. The exhibition cases are located on this space. The New York apiarian exhibit occupies the amount of this space I have mentioned, in the seventh paragraph on page 310. The editor's statement in the second paragraph of the article on page 137 explained the matter thoroughly, and I believe no one can possibly be misled, or get anything but the correct idea intended to be conveyed.

In reference to the amount of comb honey in the New York apiarian exhibit, I would say this:

It has been the custom in many first-class expositions, to offer premiums on certain amounts of comb honey. I visited the Toronto Exposition last summer, and there saw several exhibits said to contain 500 pounds each, if my recollection serves me right. It was put up in cases with only sections on one side in view, I believe. The careful reader will observe that Dr. Mason also takes this view of the matter when it happens to help his side of the question. In the tenth paragraph of his article, on page 201, he says: "When I left the World's Fair, Mr. H. D. Cutting had already received about 1,000 pounds of comb honey, which is loaned by Hon. Geo. E. Hilton, of Fremont, for the exhibit. Mr. Cutting expected as much from Hon. R. L. Taylor, of Lapeer, also loaned, and was looking for more comb and extracted honey from other bee-keepers, that had already been shipped, making their *comb honey* exhibit within a few hundred pounds (300 perhaps) of being as large as the New York comb honey exhibit." Without any reflection on the Michigan comb honey exhibit (which is very elegant), I wish to observe that nearly all the comb honey in it is in the regular sized 12 and 24 pound cases, in which the combs on one face of the cases only are shown. I have not taken an inventory, but think there may be from 200 to 400 pounds outside the shipping cases, perhaps more.

It would be a good exhibition of fairness for Dr. M. to measure the New York exhibit with the same yard-stick used in measuring the Michigan exhibit, and not insist on seeing every pound of the New York comb honey exhibit placed in sight, and at the same time declare the honey in cases out of sight in another exhibit to be on exhibition. "Consistency's a jewel."

I do not care to split hairs about this matter, but when in the sixth paragraph of Dr. M.'s article he mentions 2,779 sections as being the approximate number of sections in sight, it looks very much as though he was not seeking the "approximate" number, inasmuch as he failed to use even and round numbers, and had made an *actual* count. I beg to state that there were, up to a few days ago (since which time we have been re-arranging exhibits, on account of the receipt of many exhibits of new honey), 2,892 sections in sight. This discrepancy of 113 sections may have occured in Dr. M.'s *effort* to add, or he may have counted them in the dark.

Again, in the seventh paragraph of Dr. M.'s article on page 342, he refers to the weight of the sections. If the sections in the Ohio exhibit are regular size 1-lb. sections, and weigh less than 15 oz. each, as he admits, and there is no way of explaining such light weight, I should call them very poorly filled. I have just weighed some sections taken from the New York exhibit, that are, as nearly as I could select, as well filled as the average in the Ohio exhibit, and I find them to weigh from 16½ to over 17 ounces. In fact, the whole crop of white honey from Mr. Fred H. Fargo, of Batavia, N. Y., amounting to 4,236 sections, weighs, on the average, according to his bill, over 16⅛ ounces per section, and I am satisfied Mr. Fargo is correct in his weights. Mr. F. uses separators, and the sections are 1⅞ inches wide.

Mr. Albert Snell, of Clayton, N. Y., has sent in an exhibit of honey in sections of the same width (in the production of which I think no separators were used), that weigh 13 pounds per 12 sections.

If a whole crop of over 4,000 pounds weighs at the rate of over 16⅛ ounces per section, on the average, it would be expected that many of these sections would be well and perfectly filled. Now, to be fair, I think the cause of the sections in the Ohio exhibit weighing so light, lies in the fact that the sections are narrow, and not that they are poorly filled.

If Dr. M. measures the New York exhibit in the same manner that he does the Michigan exhibit, the statement in the fifth paragraph of the article on page 137, to the effect that New York has on exhibition more than ten times as much comb honey, etc., is correct.

It is hardly necessary to say anything more concerning the space occupied by the New York exhibit. I gave the correct dimensions of our cases in a former article. I am sorry we could not use our space in the manner preferred by Dr. M., but we did not feel called upon to consult any one as to how we should use it.

I will say right here, that the New York apiarian exhibit is composed of all the exhibits placed in the New York cases; as to whether they are purchased or loaned, makes no difference. They are here to represent the apicultural interests of the Empire State.

I also beg to state that the 6 colonies of bees in the case against the wall *are*, and *have been*, on exhibition ever since their installation. There are curtains on the front of the case to regulate the light; one or more of these curtains are raised during exhibition hours, or after the visitors begin to arrive, and no one has been refused when seeking to examine the bees. I have been in attendance at the New York exhibit every day, except Sundays, since June 27th, which was very soon after their installation, and, as far as I know, every one desiring to see them has been accommodated. The case sets against the wall, and was built according to my directions.

The fact that the 6 colonies have *gathered* over 250 pounds of honey since placed in the case, is sufficient evidence that my notions about its construction were not entirely faulty. If I had known that Dr. M.'s heart was so set upon seeing the exhibits in this case from the opposite side, or outside the building, I would have had a perch built out there for him, where he could sit and look in at the entrance where the bees fly from the building. He is the only one that has raised the question and made the claim that the product of the length and breadth of a space is not equivalent to the space enclosed unless such space may be seen from all sides and at all times, as would be inferred from reading the 3rd, 10th and 12th paragraphs of his article on pages 341 and 342. I imagine from Dr. M.'s success in juggling with figures and measurements, that he would have no difficulty in annihilating the force of gravity. He could then support himself in mid-air on the outside, and gaze with much satisfaction in through the apertures where the bees fly from and to the building.

Regarding the width of wood on the sides of the cases mentioned near the close of Dr. M.'s article, I may say that the end-pieces in the cases in the New York exhibit are ⅝ of an inch in thickness. The end-pieces of the cases in the Ohio exhibit are 5/16 of an inch thick, I believe. The tops and bottoms of the cases in the Ohio exhibit are also much thinner than those in the New York exhibit. The wood on the sides of the cases in the respective exhibits are of the same width, hence the projection of the side-pieces at each end on the cases in the Ohio exhibit is 5/16 of an inch more than the projections of the side pieces at each end on the cases in the New York apiarian exhibit. That 5/16 of an inch projection, when looking straight at the case, will cover a large defect. If the observer will take the pains to look in around the edges, he will see whether or not there are any imperfections.

I agree with Dr. M. that there are "really more" imperfections to cover in the New York than in the Ohio exhibit. It would naturally be expected that in an exhibit of comb honey in which there are nearly 2,900 sections *in sight*, there would be a greater number of imperfections than would be found in an exhibit of about 500 selected sections; and I am still of the opinion, after looking back of the *projections*, that the New York exhibit contains many more perfectly filled and full weight sections than can be found in the Ohio exhibit.

As I said in a former article, I believe my figures in regard to the amount of our extracted honey to have been too high, and that I made no attempt at absolute accuracy.

In the fourth from the last paragraph of Dr. M.'s article, he claims to have counted the cases in the New York exhibit, and finds 424 showing two sections each, 280 showing three sections each, and 266 showing four sections each. Not one of the items in this statement is correct, and if it is not evidence that his early education in the rudiments of arithmetic is becoming impaired, the discrepancy must be accounted for in some other way, perhaps due to defective "recollection," though not 240 miles away *this* time.

The correct figures are—443 cases showing two sections each, 295 cases showing three sections each, 255 cases showing four sections each; and 16 cases showing no sections (the latter used in building in corners in such a manner that the sections are not shown); total, 1,009 cases.

I would not be understood as casting a single reflection on another exhibit, for I know that all are worthy and deserving of the highest commendation. I have acted entirely on the defensive in every remark made concerning other exhibits, and have said just as little as I could in justice to myself and the apiarian exhibit of the Empire State. But I protest against having the exhibit I represent measured from one standpoint, and a comparison drawn with another exhibit from another standpoint; I protest against the publication of what purports to be an absolutely correct count of items, unless it is correct; and to any comparison of weights of sections and projections of side-pieces of cases, etc., unless a full explanation of apparent differences, or apparent similarity, is made.

Dr. M. has never asked my assistance in making an *inventory* of the New York State exhibit, or in weighing sections for his comparisons, although I have been on hand every day, and would have been glad to have given him assistance. If he had asked my assistance, I could have furnished him some *correct statements*, instead of his *misstatements*.

World's Fair Grounds, Chicago, Ills.

[For final reference to the above discussion in the Bee Journal, see page 359 of this issue.—Ed.]

Foul Brood Disease—Its Treatment and Cure.

Written for "Gleanings in Bee-Culture"

BY ERNEST R. ROOT

To many of our readers, and perhaps the majority, the rehearsing of much that is old on this subject may seem unnecessary; but as the information that has been gathered during the past seven or eight years, including our own experiments in the treatment and cure of foul brood, have been scattered through many different copies of the bee-papers, it is hard for the beginner and others, who have unexpectedly come upon foul brood, to get at the information quickly. We have already carefully considered the subject under the heading of "Foul Brood," in the "A B C of Bee-Culture;" but as the disease seems to be breaking out anew in many quarters, and many questions are being asked, we will attempt to boil down the best that has been written, including the article in the book, bringing the matter up to the very latest date.

SYMPTOMS OF FOUL BROOD.

Some of the brood fails to hatch. Cappings here and there are sunken and perforated at the center. On opening one of these cells there will be found a dead larva lying on one side of the cell, somewhat shrunken, and of a brownish color, varying all the way from a light, pale brown to a dark brown. In the more advanced stages the brown is of the color of a coffee-berry after being roasted. In the incipient stages the brown is of the color of the coffee we drink, when greatly diluted with milk. But so far all these symptoms may be present as a result of chilled, overheated or starved brood. But to determine whether it is the real foul brood, run a toothpick into the dead larva and then draw it slowly out. If the maturated mass adheres to the end of the pick, about like spittle, and finally the fine thread breaks when the pick is drawn back, it is probably a case of foul brood. With all other forms of dead brood, with perhaps one exception, this ropiness does not appear; but with foul brood it invariably appears.

Now, there is another symptom, and that is, the odor; while not exactly foul, it resembles greatly that from a cabinet-maker's glue-pot; and when the disease is pretty well advanced in the hive, the odor will make itself manifest upon lifting the cover or quilt, even before exposing the brood. If other colonies are affected in a similar way, and the disease appears to spread, it is unquestionably a case of foul brood.

In the above we have referred to an exception where the diseased larvæ have a brown color, and yet show the ropiness—a sort of malady that will correct itself, and which is very apt to appear just before the honey-flow during hot weather. It appears very suddenly, and disappears just as suddenly. It is not foul brood, because it does not spread; and, so far as we can remember from our own apiary, it lacks the distinctive foul-brood odor. We wish we knew what it was.

TREATMENT AND CURE OF FOUL BROOD.

We have tried all the medicine, acid, or antiseptic treatments. We have carefully followed the reports as given in the bee-journals for such treatments; but so far we would not advise anybody to place very much dependence upon them. The carbolic-acid (or phenol) treatment is, perhaps, as good as any; but when it is strong enough to kill the germs of *Bacillus alvei* (the scientific name of foul brood) it kills the bees, too; but even then we have found the disease would reappear in from a month to six weeks after its use. It seems to work a temporary cure; but such a cure in the case of foul brood is no cure at all. In fact, it actually does harm, because, if a more effectual treatment, which we shall give presently, is used, it does away with the *danger* of infection. Now, understand, we do not mean to assert positively that phenol cannot be made to cure foul brood; but our experience and observation convince us that the average bee-keeper had better let it alone.

THE PLAN THAT WE PREFER.

Having satisfied yourself of the presence of foul brood, or even having a suspicion that the disease is in some particular colony, prepare a clean hive containing only frames of foundation. Toward night shake all the bees from the diseased or suspected colony on to the frames of foundation, and place the new hive on the stand of the old one. If possible, the new hive should resemble exactly the old one; otherwise the bees will be confused, and carry the germs of the disease to other colonies. Compel the bees to use up the honey in their honey-sacs in drawing out the foundation. Don't feed for a day or so.

The diseased honey in the honey-sacs will be converted into wax, and the new product will be entirely harmless. The old combs of the old hives should be burned. Do not try to economize by melting up the wax. You will not get enough of it to pay, besides run the risk of spreading the disease all over the apiary. The old hive should be immersed in boiling water for at least 15 or 20 seconds. Splashing boiling water on it will hardly be sufficient. Painting the inside of the hive with a strong solution of carbolic acid may answer; but we know that boiling the hives is effectual. The hive, after boiling, may be used again with perfect impunity, with new colonies.

We would not advise burning colonies. Unless you burn up every bee, the few that escape will get into some other hive and do more damage than the treatment above recommended.

Caution.—Do not handle the infected colonies during the day, or when robbers are nosing around. Do not attempt to satisfy the curiosity of other bee-keepers who would like to see what foul brood looks like, smells like, etc. If you use any sort of brush for brushing the bees off the combs into the new hives, either burn it up or keep it for awhile in boiling water before using it again on healthy colonies. Nothing but an old smoker should be used in working with foul brood. The boards of the bellows may, perhaps, with advantage be painted over with a strong solution of carbolic acid; but after having rid the apiary of foul brood, burn up the smoker. Disinfect everything where possible, that has come in contact with combs or hives that are infected with the disease, by immersing in boiling water. The hands should be thoroughly washed in water strongly tinctured with carbolic acid, just strong enough so it will not quite peel the skin off the hands. A solution diluted 500 times, or the strength recommended in the phenol treatment, is hardly adequate. We have tested such strength in killing the germs grown artificially in test-tubes, and it seems to have no effect one way or the other.

If you are afraid of foul brood, cut this article out and paste it inside of your honey-house, where you can have it ready for immediate reference in case the disease should ever make itself manifest in your apiary. We have carefully tested personally the method we have recommended above, and know that it is effectual. Allow us to repeat that we have carefully tested personally the acid and medicine, or antiseptic treatment, and have found them practical failures. We are sure that our readers had better not try to experiment for themselves. It would be far better for them to accept the dictum of somebody else who has been through it all.

Medina, Ohio.

Convention Notices.

PENNSYLVANIA.—The next meeting of the Susquehanna County Bee-Keepers' Association will be held at the Jay House, in New Milford, Pa., on Thursday, Oct. 12, 1893, at 10 o'clock, a.m. All are cordially invited.
Harford, Pa, H. M. SEELEY, Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land, FRANK BENTON, Sec.
Washington, D. C.

MISSOURI.—The 8th semi-annual convention of the Missouri State Bee-Keepers' Association will be held at Pertle Springs (near Warrensburg) Mo., on Oct. 18, 19 and 20, 1893. It is desirable that as many as can possibly make arrangements will be present, in order that the prosperity of the Association shall not suffer in these poor seasons, for want of personal support. The Executive Committee will prepare a program that will give all an opportunity of expressing themselves on the most important subjects now occupying the attention of the bee-keepers of the country. Arrangements have been made with the M. P. Ry. Co., for 1⅓ fare, certificate plan. Accomodations at the Pertle Springs Hotel will be reasonable. Bee-keepers from any State and every State will be cordially welcomed. P. BALDWIN, Sec.
Independence, Mo.

OUR
LETTER BOX
REPORTS, PROSPECTS, &c.

☞ **Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.**

Piping and Quahking of Queens.

I have read on page 281 that reply from James H. Rose, but cannot fully make out just what his belief is. Of course we want to get at the truth of the matter, and if I am wrong in my belief that in the case of piping and quahking one free queen is piping, and others in the cell quahking, ready to come out if the coast was clear, I shall be glad to learn the truth. Of course, this refers to the case in which further swarming is intended, for I think we all know that when no further swarming is intended all the queens but one are dispatched.

Friend Rose says he will not believe as I do, and says, "I have had ten young queens in a hive at one time, not loose and piping, but all quahking to get at each other to reduce the surplus (queens) in that hive." Now please tell us, Friend Rose, what you mean by that. Do you mean those quahking queens were in the cell or out of the cell? And if they were quahking to get at each other, what hindered them from getting at each other? C. C. MILLER.

Marengo, Ill.

Honey Crop an Entire Failure.

The honey crop here is an entire failure. We had only a little honey dew last spring. The bees have barely sufficient stores for winter. C. P. DADANT.

Hamilton, Ills., Sept. 14, 1893.

Much Better Crop than Last Year.

I received a copy of the AMERICAN BEE JOURNAL last week, and I am much pleased with it. We have a much better crop of honey this year than last, but a small crop compared to most of the bee-keepers. We had 36 colonies, spring count, and at the approach of swarming I divided, making an increase of one to ten. I also built up the few weak ones I had, and by so doing they were all in good condition for storing when the white clover opened. We got a fair crop from the clover, in fact our whole crop is from white clover, except a very little dandelion honey.

The basswood blossomed in great pro-

fusion; every little tree was bending with blossoms, but we had no rain for several weeks, and the blossoms dried and died. Our bees, I think, worked only one-half day on it. We may get a very little from the golden-rod. We have taken off a little over 1,000 pounds, and I doubt if we have as much more to take off.
MRS. F. T. HALL.
Barron, Wis., Sept. 4, 1893.

Failure of the Honey Crop Again.

Bees in this section have done no good, and I fed mine in August to keep them from starving. I do not suppose there will be one pound to the hive, of surplus honey, this year. This makes the fourth year that this part of the country has had a failure, but none like the present year.
C. A. LEIBRANDT, JR.
Cameron, Mo., Sept. 12, 1893.

Drouth Finally Broken.

The drouth broke here on Aug. 17th, with 2¼ inches of rain in two days. It is late for fall flowers, but we hope our bees will get winter stores. G. W. DEMAREE.
Christiansburg, Ky., Sept. 13, 1893.

Less than Half a Crop.

We have to report somewhat less than half a crop of honey (all white). The bees were almost idle from the middle of July until Aug. 20th. They are working on golden-rod now, but don't seem to be making much more than their "daily bread." Judging from present indications, we will have to do considerable feeding for winter stores. WM. RUSSELL.
Minnehaha Falls, Minn., Sept. 9, 1893.

North American Convention.—We have received the following announcement from Secretary Benton:

COLUMBIAN MEETING OF THE BEE-KEEPERS OF NORTH AMERICA.

The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills.

PLACE OF MEETING.

A hall for the use of the Convention has been secured in the "Louisiana Hotel," at the corner of 71st street and Avenue B, only a few minutes walk from the south entrance to the World's Columbian Exposition. This hall is large, well-lighted, and in a quiet place.

HOTEL ACCOMMODATIONS.

The "Louisiana Hotel" itself will furnish comfortable accommodations to members at very moderate prices. For a small room two persons pay daily 75 cents each. Larger rooms occupied by two, at $1.00 per person. Four persons occupying a room having two beds will pay 50 cents each. Meals can be obtained in the hotel at reasonable rates, or at numerous restaurants in the vicinity. It is best to engage rooms by letter beforehand.

The proprietors of the "Louisiana Hotel" give us the use of the hall free, expecting that all the members, so far as possible, will take rooms with them, and as the prices are moderate, and rooms are neat and convenient, it is but just for all who can well arrange to stop there to do so. For this purpose, address, Manager "Louisiana Hotel," corner 71st Street and Avenue B, Chicago, Ills., stating what priced room is wanted.

RAILWAY TICKETS AND BAGGAGE.

Most of the railways ticket to the Exposition Depot, near which the "Louisiana Hotel" is located, and baggage should be checked to that station, thus avoiding extra charges, as it is about seven miles from the city stations to the World's Fair Grounds. Information as to rates of travel, the time tickets are good, etc., can be obtained of all local ticket agents. From many points—especially from cities having numerous competing lines—excursions will be starting which will permit those who can take advantage of them to go and return at the usual rate for one fare, if not less than that. FRANK BENTON,
Sec. North American B.-K.'s Association.
U. S. Dept. of Agricuture,
Washington, D. C.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Laugstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported	$20 65
S. C. Stout, Husted, Colo	1 00
Bee-Keeper, Fresno, Calif	1 00
Total	$22 65

Read our great offers on page 357.

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, at its last meeting, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

* * *

CHICAGO, ILL.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, 5@7c. Beeswax slow at 20c.
Sept. 14, J. A. L.

CHICAGO, ILL., Sept. 15.—The receipts of comb honey have not been in excess of the demand up to this date. We have yet very little surplus. Prices remain at 15@16c. for the very best grades. Discolored combs and the darker grades generally are slow of sale at about 14c. Our sales, however, are chiefly at 15c. We consider this about the best season of the year for shipping and selling comb honey. It stands transportation better than it will when the cold weather comes, and people buy it in larger quantities than they do later in the fall. Extracted is nominal, some sales being made all the time at prices ranging from 6@7c., with some other dark goods a little lower. Beeswax salable at 22c. We would advise those having honey ready to ship, to send it forward during this month, or early next. R. A. B. & Co.

ST. PAUL & MINNEAPOLIS, MINN., Sept. 12.—The receipts of honey are quite liberal, especially the last two weeks. A great deal of Wisconsin comb honey has arrived and is in very good condition; this is being sold at 13½@16c.; the lower price being for darker honey, which, however, does not meet with an active inquiry. California 1-lb. sections selling at 14@16c. Two or three carloads of extracted honey have recently arrived, and sold at 6½@7c., there being little or no difference between white and amber as to price obtained in this market. The best season for comb honey is now coming on. S. & A.

CINCINNATI, O.—Demand is fair for extracted honey at 5@8c., with a good supply. Quite a number of small arrivals of nice comb honey found a ready sale during the last few weeks. Demand is fair. The close money market causes slow collections and makes itself felt on the demand of all merchandise, including honey.
Beeswax—Demand fair, at 20@23c for good to choice yellow. Supply good. C. F. M. & S.

BOSTON, MASS.—Fancy white, 16@18c.; No. 1 white, 15@16c. Extracted, white, 7@8c.; amber, 6½@7c. Beeswax, 25@28c. B. & R.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

KANSAS CITY, MO., Sept. 14.—Demand is good. Supply light. We quote: 1-lb. comb, 16c.; light weight, 14c. Extracted, white, 7½c.; amber, 6½c.; dark, 5@5½c.
Beeswax, 22@25c. H. & B.

NEW YORK, N. Y., Sept. 12.—Our market remains quiet. New comb honey is arriving freely, and the demand is rather light. We quote: Fancy white, 1 lb. sections, 14@15c. Off grades irregular and in no demand. Extracted is selling slow at from 60@65c. per gallon for Southern, and 5¾@6c. per pound for Californian. Beeswax dull at 23@24c.
H. B. & S.

ALBANY, N. Y.—Our honey market is steady. We quote: White comb, 15@16c.; mixed, 13@14c.; dark, 11@12c. Extracted, white, 7½@8c.; mixed, 7c.; dark, 6@6½c. White extracted honey should be marketed now while there is a demand for bottling, that is not later on when weather is cold and the honey chilled.
Beeswax, 25@27c. H. R. W.

CHICAGO, ILL.—We quote: Fancy selling at 16c.; choice, 15c.; No. 2, 13@14c.; poor, 12c. With prospects of a large crop, we advise early shipments to the market. Extracted selling at from 5½@7c., depending upon the color, flavor and style of package, and quantity the buyer will take. Beeswax, 22@24c. We have no stock on hand. S. T. F. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN.
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. Co., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs

Wanted—Comb Honey.
Highest Cash Price paid for same. Address,
I. J. STRINGHAM,
12A3t 105 Park Place, New York City.

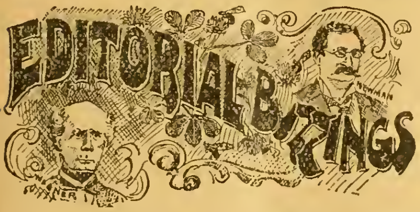
ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., SEPT. 28, 1893. NO. 13.



Glass Hives were invented first in 1712 by Maraldi, a mathematician of Nice, Italy, who devoted much time to the study of the economy and in-door operations of the bee. He likely was a "Nice" bee-man.

◆

Bro. J. T. Calvert, the affable Manager of Bro. A. I. Root's big bee-supply business at Medina, O., was at the BEE JOURNAL office last Friday. We had never had the pleasure of meeting Bro. Calvert before, and yet, having known him so well by his excellent reputation, we felt pretty well acquainted with him at once. He was visiting the World's Fair with his wife, and Miss Carrie, a daughter of Bro. Root.

◆

Hon. C. Grimm, of Jefferson, Wis., came to see us last week. Mr. G. is a brother of Adam Grimm, the man who made a small fortune in the bee-business years ago, and whose picture and biographical sketch we gave last February. Mr. C. Grimm is now a member of the Wisconsin Legislature, having been elected to that honorable office last fall by a handsome majority. He has about 300 colonies of bees, and reports less than an average crop of honey this year. He hopes to meet his old-time bee-keeping friends at the convention next month.

Mr. I. W. Rollins, of Elgin, Minn., called on us last week. He reports about 1,200 pounds of comb honey from 29 colonies, spring count. Speaking of the great loss of bees last spring, he believed that it was on account of old bees going into wintert, instead of young ones, and thus in the severe spring that followed, they were unable to pull through until young bees could be reared to take their places. In Minnesota, as well as elsewhere, there was no fall crop of honey last year, and so the bees were unable to rear the proper young for wintering. Mr. R. thought this idea of the cause of losses in wintering and springing bees had not been noticed sufficiently.

◆

Among the Callers at this office during the past week or so, and whom we were much pleased to meet, were H. M. Stephens, of Kansas; Frank S. Baldwin, of Michigan; Geo. H. Lawton, of Vermont; E. C. Porter, of Illinois (the Porter bee-escape man); Messrs. O. M. Morris and J. W. Essex, of Indiana; Lester L. Price, of Nebraska (the Ferguson patent hive owner); T. Garion Fisher and Wm. B. McCormick, of Pennsylvania; Ellis E. Mason, son of Dr. A. B. Mason, of Ohio; and P. A. Lindskoog, of Iowa.

◆

The North American.—Just one week from next Wednesday (on Oct. 11th) the great convention will be in session in Chicago. The time is short, and everybody should soon have everything in readiness to start for the glorious rallying of bee-keeping's mightiest and best leaders. It should be a memorable gathering—*it must be such!* Brother, sister, *you* can help make the forthcoming convention an era-mark—

a prophecy—in the annals of modern and progressive bee-culture. COME, and aid, by your presence and experience, in showing to the world that bee-keepers of America are a wonderful power for good, and that with their production of concentrated sweetness for the benefit of mankind, they represent an industry worthy the heartiest support and encouragement of both people and government.

The following are some of the subjects that will be discussed at the convention:

President's Address.
The Production of Comb Honey.
The Winter Losses—Their Remedy.

The National Bee-Keepers' Union—Its Scope and Legitimate Work.

The Control or Prevention of Swarming.

Should there be Any Change in the Rules for Grading Honey Adopted at the Last Convention ?

How Can the Usefulness of the North American Bee-Keepers' Association be Increased ?
Apiculture at Our Experiment Stations.

The following named persons will be present at the Chicago convention on Oct. 11th, 12th and 13th:

E. T. Abbott, Superintendent of the Apiarian Department of the St. Joseph Fair, Missouri.

Frank Benton, Secretary of the North American Association; also Mrs. Frank Benton, and Zoe and Ralph Benton.

O. R. Coe, life member, from New York; and Mrs Coe.

H. D. Cutting, ex-President of the North American, and Mrs. Cutting, of Michigan.

A. N. Draper, life member, from Illinois.

Jas. A. Green, from Illinois.

Hon. J. M. Hambaugh, President of the Illinois State Association.

O. L. Hershiser, Superintendent of the New York State Apiarian Exhibit at the World's Fair.

R. F. Holtermann, Editor *Canadian Bee Journal*, and delegate from the Brant Bee-Keepers' Association.

W. Z. Hutchinson, Editor *Bee-Keepers' Review*, Michigan.
F. W. Jones, from Canada.

R. B. Leahy, Editor *Progressive Bee-Keeper*, Missouri.
W. G. Larrabee, President of the Vermont Bee-Keepers' Association.

Dr. A. B. Mason, ex-President of the North American, and Superintendent of the Ohio Apiarian Exhibit at the World's Fair; also Mrs. A. B. Mason.

M. H. Mandelbaum, of S. T. Fish & Co., Chicago.
Dr. C. C. Miller, President of the North American; and Miss Emma Wilson.

Thomas G. Newman, ex-President of the North American, and Manager of the National Bee-Keepers' Union.

Dr. P. J. Parker, of California.

A. I. Root, Editor of *Gleanings in Bee-Culture*, and E. R. Root, Associate Editor.

Chas. F. Muth, of Cincinnati.

Jas. A. Stone, Secretary Illinois State Bee-Keepers' Association, and Superintendent of the Illinois Apiarian Exhibit at the World's Fair; also Mrs. Jas. A. Stone.

Barnett Taylor, of Minnesota.

C. C. Clemons, of Missouri.

Hon. Geo. E. Hilton, of Michigan, and Mrs. Hilton.

Hon. R. L. Taylor, ex-President of the North American, and Superintendent of the Michigan Experiment Apiary.

G. R. Pierce, of Iowa.

Mrs. J. N. Heater, Treasurer Nebraska State Bee-Keepers' Association.

L. C. Axtell, of Illinois.

Chas. H. Thies and H. C. Mellon, Illinois.

C. Theilmann, of Minnesota.

Thos. Oberlitner, of Ohio.

F. A. Gemmill, President of the Ontario Bee-Keepers' Association, Canada.

Walter S. Pouder, of Indiana.

G. G. Brown, of Iowa.

S. T. Pettit, of Canada, and Mrs. Pettit.

* * *

Dr. P. J. Parker, of Fall Brook, Calif., dropped in on us last Thursday. He reports only an average crop of honey in California, his own crop being 26,000 pounds of comb honey from 387 colonies in three different apiaries. It was mainly gathered from the black sage, which yields a much lighter-colored honey than the white sage. He thinks that California produces whiter honey than the East, though it would be hard to conceive of anything ahead of some of the honey at the World's Fair. Dr. P. combines " healing the sick " with the production of honey, and, judging from his success, it would seem that they harmonize very nicely.

* * *

Stray Straws are becoming quite the thing now-a-days, whether produced in a bee-paper or at a convention. This was clearly shown at the recent International Sunday-school gathering at St. Louis, Mo. There had been quite a good deal discussion upon the International Sunday-School Lesson System, and it seemed that there had been some effort in certain quarters to change the system of having the same lesson studied by all the Sunday-schools in the

World on the same day, though the opposition didn't appear to be very strong.

The *Sunday School Times*, in reporting the proceedings, says in its issue of Sept. 9th:

> "The discussion ran good-natured and earnest, but all in one direction. At this juncture, Mr. Jacobs got the floor. He asked consent to call for persons of other views. He feared, if none spoke in the negative, it would be said 'Discussion was cut off.' He called and called again, and the audience waited for the antagonist to appear. While all were silent and expectant, *a stout, determined-looking man* arose, and made his way to the front. Who he was, none seemed to know. It was whispered that he was the champion, possibly the author, of this or that rival system. He took the platform, and began by declaring 'I am in favor of some other system—if there is any other' [roars of laughter and rounds of applause]—'if there is any other that is better, and if I can be guaranteed that after 21 years of trial no more opposition will be raised against it than there now is against the International System.' The speech was ended, and the hit was squarely made."

It is needless to say that there was no change made in the system that had been so successfully used for 21 years. But it was the following "stray straw," by that "stout, determined-looking man," that brought down the convention:

> I am in favor of some other system—if there is any other that is better, and if I can be guaranteed that after 21 years of trial no more opposition will be raised against it than there now is against the International System.

It is interesting to know that the foregoing "straw" was presented by our own Dr. Miller—the "stout, determined-looking man," whom everybody will be delighted to see at the North American convention next month. He is the honored President of the Association, you know.

◆

Next California Convention.—It has been suggested that the next meeting of the California State Bee-Keepers' Association be held in San Francisco during the time of the Mid-Winter Fair. The plan seems to be a good one, and should induce a good attendance. No doubt the railroad companies will make such a reduction in transportation rates that people from the Southern portion of the State can find it convenient to go to the metropolis without feeling that they are giving away their birth-right to do so.

There is also some talk of getting the professors of entomology in both the California and the Stanford Universities interested in the convention, and, if possible, have one from each institution furnish essays. The latter university has the celebrated Prof. Comstock as one of its faculty; if he could be secured "on the list," it would be a drawing card. Then, we understand, the State University has one of the best botanists in the land on its staff. This is Prof. Greene. He might be asked to give an essay upon the honey-flora of the State. Also, some of the faculty who are connected with the horticultural branches, might say something on the bee-fruit side of the question.

Again, the chemical colleges, and perhaps the electricity branches connected with these institutions might be induced to tell something about what has been done in their lines of late for the bee-keeper. All these would bring a new lot of men before the public, and it is possible that they could throw some new light upon the industry. If they can be secured, what a force of co-laborers we shall have, when they are added to those we now have, that is, to Profs. Cook, Wiley, Mr. Benton, and others.

It does seem to us that to hold the California State bee-convention during the Mid-Winter Fair at San Francisco would guarantee a grand meeting in every way.

◆

Mr. James McNeill, of Hudson, N. Y., gave us a very pleasant call recently. Mr. M. is one of the prominent bee-keepers, as well as writers, of his State, and in years gone by his name appeared frequently in these columns. He was "doing" the Fair. It's too bad he, as well as many other bee-keepers, couldn't have waited so as to be here at the North American convention next month.

◆

The Flavor of Honey is written about in the *Rural Californian*, by Mr. C. N. Wilson. He says that the nectar of flowers that grow at an elevation of 700 feet or more above the sea level, is richer and contains more sweet than that produced nearer the sea or in low lands. No doubt the purity of the atmosphere in the higher altitudes has considerable effect as to the flavor of honey; even the ancients considered that produced in mountain districts superior to that gathered in valleys. Forty years ago he observed that the honey produced from buckwheat grown at the summit of a chestnut ridge, was very much superior to that from buckwheat grown in a river bottom some two miles away; the difference of flavor was so marked that the chestnut-ridge honey had the advantage over the other both in price and ready sale, though both articles were strictly pure buckwheat honey.

If more care was bestowed on selection of bee-pasturage, Mr. W. thinks that better prices could be obtained and maintained for Southern California honey. A difference of one cent a pound on the crop would make a very desirable addition to the beekeeper's bank account, and with care and attention on the part of the apiarist it can be done.

◆

Winter Consumption of Honey.—Bro. Hutchinson once said in the *Review*, that the "Consumption of honey by bees when in their winter quarters, the amount and proportion according to the season, may be determined by keeping colonies on the scales while in the cellar. Last fall, Nov. 20th, I put my bees into the cellar, and set 3 colonies, in 8-frame Langstroth hives, on a pair of scales. The gross weight was 153 pounds. They were weighed frequently, and there was an average loss of two pounds per colony, each month, but I could not detect that there was any difference between one month and another in regard to the amount consumed. They were placed on the summer stands April 5th, having lost, on an average, nine pounds per colony during their 4½ months' confinement."

◆

Full of the Freshest Thoughts.—Here is what the *Wisconsin Farmer* says of this paper: "The AMERICAN BEE JOURNAL is the senior bee-journal in the United States. It has been from the start ably conducted, and continues in the lead of bee-journalism. Every bee-keeper of progressive tendencies should be a subscriber. It is a weekly magazine, and is always full of the freshest thoughts on bee-matters."

◆

Honey as Food and Medicine is just the thing so help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the BEE JOURNAL for description and prices.

Gipsies of the Air—A Bee-Song.

Written for the Country Gentleman

BY CHAS. H. CRANDALL.

We are the gipsies of the air;
In brown and golden sheen
We scour the fields for treasure rare
To lay before our queen.

We draw our swords in her defense,
If any foe be nigh,
And count it sweetest recompense
In her behalf to die.

Of all the music of the air
Our gipsy *czardas* wild
Is free and glad beyond compare,
Like to a romping child.

When summer tempts our monarch out,
To roam earth's gardens o'er,
We all attend with merry rout,
And couriers fly before.

Through the blue vault we, singing, speed,
Carousing, whirling by,
While rustics turn their heads to heed
The revelers of the sky.

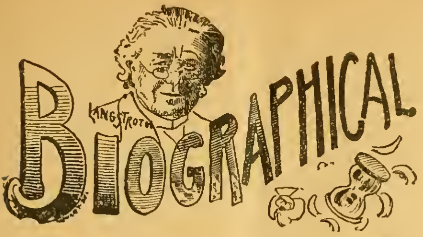
Later, by dint of busy wings,
We dare the wintry days,
And loud the tidy housewife sings
The honey-gath'rers' praise.

For we are gipsies of the air;
In brown and golden sheen
We scour the fields for treasure rare,
And throng about our queen.

◆

Another New Thing in Hives.—Mr. O. N. Baldwin, of Kansas, has invented what he claims to be a new improvement in bee-hives, which, it is said, is destined to revolutionize bee-culture in the near future. He claims to have an invention by the use of which swarming is impossible, and while the entire increase of a colony is kept concentrated in one body, the whole force of field workers are compelled to carry the honey into the surplus department. Those two great objects in apiculture have puzzled the minds of the leading apiarists of the world.

Mr. Baldwin had his invention before the U. S. patent-office last spring, and as soon as the patent was allowed, he expected to proceed to take out patents in all the countries of the world where bees are kept. He thinks by the use of his new invention, five times the amount of honey will be obtained and as supply and demand govern the price of all commodities, it will cheapen honey to such an extent that it will become a staple instead of a luxury as it now is.



MRS. SARAH J. AXTELL.

Few indeed are the very prominent women in apiculture, but those who are widely known are very choice specimens of "their side of the house." So far in our biographical sketches during the past, more than a year, we have shown to the admiring gaze of our readers, the pictures and sketches of the energetic Mrs. L. Harrison, the pushing and go-ahead Mrs. Atchley, and the ever helpful and "just-so" Miss Wilson.

MRS. SARAH J. AXTELL.

This week we come back for the third time to Illinois for the lady bee-keeper to be represented in the BEE JOURNAL's biographical department, having selected Mrs. Axtell. She is perhaps better known to the hosts of readers who peruse the pages of *Gleanings*, though to the majority of those who take the BEE JOURNAL her name is fairly familiar.

In the "A B C of Bee-Culture" we find the following about Mrs. Axtell, which was written by the "stray-strawing" hand of Dr. Miller:

> Mrs. Sarah J. Axtell is one of the women prominently known among bee-keepers, although she protests that her husband, Linus C. Axtell, rather than herself, should have the prominence. Mr. Axtell is a farmer living at Roseville, Warren county, Ills., his wife having been an invalid most of her life. In 1871 they got their first colony of bees. As these increased, Mrs. Axtell's interest in them increased, and with increase of interest in the bees came increase of health, Mrs. A. finding that, after a summer spent in the open air with her bees, her health is so much improved that she is able to withstand the winter confinement, to which she might otherwise succumb.
>
> Since 1877 the bees have been kept in two apiaries. Mr. A. hires help to do the work of the farm, which he superintends, but spends most of his time in apiculture. At the beginning of the season he goes daily to the out-apiary, doing the work there; comes back in the evening, and makes preparations for both apiaries for the next day. Mrs. A., with the help of the hired girl, takes care of the home apiary, puts starters in the sections, and does other light work pertaining to the business. By harvest-time swarming is nearly over, and the work is reversed, Mrs. A. going daily to the out-apiary, while Mr. A. takes care of the home-apiary and helps harvest the farm crops.
>
> Their success has been varied, the yield per colony ranging from almost nothing to more than 216 pounds per colony in 1882, when from 180 colonies were taken 30,000 pounds of comb honey.
>
> Mrs. A. is deeply interested in the work of missions, and an additional reason for the beneficial effects of bee-work upon her health lies in the fact that she has constantly with her the delightful stimulus of the thought that every pound of honey secured allows her to devote an additional amount to the cause so dear to her heart.
>
> Although not a prolific writer, Mrs. Axtell is practical and interesting.

General Questions.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Should be Called "Mother-Bee."

If the bee in the hive usually called "queen" is not a sovereign, why not call her by the proper name—"mother-bee," or "the egg-layer?" From what I can learn from the books, journals, etc., she has no more to do with the government of the colony than has the humblest worker. Why is she called a queen, anyway? GEORGE F. EVANS.

Martinsburg, W. Va.

ANSWER.—You are quite right in your views, Friend Evans, and if some one had pressed them one or two hundred years ago, it might have had some effect in changing the name. But after a certain length of time, a word settles down into a certain use, not because of its appropriateness, but just because that's the custom. The "mother-bee" is universally called "queen," and no matter how wrong was the original notion that gave the name, "queen" it will probably continue to be.

Hybrids or Italians—Introducing.

I mail you a sample of my bees.

1. Are they black hybrid or dark Italian bees? Are they large or small for their kind?

2. Is it too late to introduce a new queen? WALTER R. WOOD.

Bellevue, Del., Sept. 14, 1893.

ANSWERS.—1. The bees on arrival were in such condition that it would be hard to say much about them with any degree of positiveness. The cage contained six or eight of them, dead and badly smeared. A worker doesn't look the same when dead as living, and the change in appearance is still more marked when it is daubed with moist candy. Neither is it an easy thing to decide much about a colony of bees by seeing a few of its workers, especially after they have been out of the hive some time, even if they are all living. To be sure, if they are all black they would hardly be mistaken for full-blood Italians, but from a colony of half-bloods might be sent specimens with three yellow bands, and no one could tell from their appearance whether the colony was full-blood or half-blood.

2. If you have little experience with bees, you will probably find it more difficult to introduce a queen now than earlier, unless it be that you are having a good fall flow. Read up well on the general principles laid down in the bee-books, and you will be on safer ground with regard to introducing.

Bees Throwing Out the Brood.

What is the matter with my bees? I have 90 colonies, and they are throwing out brood, and have been for two weeks at every hive. There are hundreds every morning, the greater part matured, and many of them alive. They look small and shriveled. There are no moth-worms in the hives, they have plenty of stores, and are moderately strong in old bees.

There were hundreds of acres of white clover in reach of my bees, though I nor any one else in this part of the country got a section of honey. This is eight years I have been in the business here, starting with 76 colonies, and I have had but one crop in that time. They have starved me out. J. E. WALKER.

Clarksville, Mo., Aug. 16, 1893.

ANSWER.—If you had not said there were stores in plenty, we should think the case one of approaching starvation; but as it is, we must confess we can give no answer. Can any of our readers?

Robber Flies from Kentucky.

I have sent three insects that I would term "bee devourers." A neighbor of mine has killed over 200 of them, and nearly all of them had a bee in its claws. They sit on a weed or some prominent object, and catch the workers as they return loaded with honey, paying no attention to a bee going out, or those on the alighting-board. Please tell what it is, through the BEE JOURNAL. I have seen them every summer since I can remember anything, and I never knew them to catch bees before, and I have seen no account of any such an insect in my bee-books, as being enemies to bees.

The honey crop in the blue-grass district is very short this year. Only those who have Italian bees have taken any surplus honey, so far as I have heard. My bees swarmed to over 100 per cent., and nobody else's swarmed as much as 5 per cent. If you want to keep bees from swarming (and get no honey) keep black bees. JAKE EVERMAN.

North Middletown, Ky., Sept. 15.

Prof. Cook very kindly replies to the foregoing, as follows:

The insects sent by Mr. Everman are robber flies, *Mallophora orcina*, described and illustrated in my "Bee-Keepers' Guide," page 417. They do much towards reducing the force of the hives, especially in the South. Yet they do very much good, killing noxious insects, and so perhaps a true record would balance in their favor. A. J. COOK.

Hiving Swarms with Colonies.

Would it be practical for me to hive a new swarm of bees in a hive whose colony had cast a swarm a few days previous? Would they destroy the queen-cells? I do not wish to increase my number of colonies. J. S. SCOTT.

Springville, Utah.

ANSWERS.—The practice of this plan has been reported as successful. After the first colony had swarmed, and had been regularly hived, the second colony that swarmed was hived in No. 1, then when No. 3 swarmed it was hived in No. 2, and so on. Whether the plan gave satisfaction in all cases we do not know, as of late years we have seen nothing said about it.

STRAY STINGS

From—
The Stinger.

"Everybody, good or bad,
Has a fancy or a fad:
Has the best red clover queen,
Or an automatic bee-machine.
Has a great invention to reveal,
Or likes to ride astride a wheel;
In fact, no matter what his rank,
Every body is a crank."—*Selected.*

The University of California had better be looking to its laurels, for its great rival near the Golden Gate, the Stanford, Jr., University, might slip in ahead of it, and have an apicultural department full-grown from its inception.

It was that good Irish bishop, Dr. Berkeley, who, while a resident of this country, wrote that "Westward the star of empire takes it's way;" but we never heard that any one wrote about the "star of apiculture" taking its course over the same route. And yet it did, for do we not now see the "star of apiculture" hovering over the Golden State?

Perhaps it will do the State of California no harm if The Stinger would get into the bonnets of some of the regents or faculty of the colleges and gently thrust a sting where it would wake them up in a manner that would do more than the professors good.

The seat of learning at Berkeley, California, threatens to become the great hive of apicultural information. It must be confessed that the State University is slow in starting its school of apiculture. It outlined great things at the bee-keepers' convention at Los Angeles last winter, yet nothing has been done, that I know of.

Rambler had a good illustration of the Yucca, or Spanish bayonet, in a recent issue of *Gleanings.* I am sorry that he did not also give a picture of this plant as it is generally seen on its own heath. A more forbidding looking specimen of the vegetable kingdom than these monstrosities could not be well imagined. Rambler's taste for the beautiful impelled him to choose a fine specimen to show in *Gleanings.* This plant is also called "the Lord's candle-stick," which name our friend of *Gleanings* forgot to mention.

Gleanings is going to get right plumb into the tracks of the "Old Reliable," by commencing to present illustrated biograthical sketches of apiarists. There will be this difference—a difference, by the way, which will not, I am sure, clear bright *Gleanings* of the charge of being an imitator—that all the members of a bee-keeper's family will be given at the same time. Of course, this is not a bad idea, but as the AMERICAN BEE JOURNAL started this kind of "picture business," it might have appeared better if our Ohio friends had waited until the former had exhausted the field; perhaps the AMERICAN BEE JOURNAL was going to have a swing around the circle in the fashion now proposed by the other journal mentioned. Trot out your pictures, Mr. *Gleanings*, for we do not intend to sting hard over this little matter.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

IN SUNNY SOUTHLAND

CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Safe Introduction of Queens, Etc.

MRS. ATCHLEY:—If you know of a *sure* way to introduce a queen to a colony that has been queenless at least three weeks, let us have it, no matter how much trouble, just so it is *absoluely safe.*

You mentioned in the BEE JOURNAL some time ago about keeping a good breeding queen on three Langstroth frames, so she would live long, etc. Won't the bees swarm out, or supersede or kill the queen if she is restricted with excluder-zinc? Bees are always up to some new trick that I know nothing about, and just keep me on a jump to know what to do. I wish you would tell us in detail how you would manage such, and nuclei as well. I am sure there are many readers of the AMERICAN BEE JOURNAL that are green as grass. I know I am, and such lessons (as the above) will be appreciated very much.

Bishop Hill, Ills. D. LINDBECK.

Friend L., I only know of one *absolutely* safe way to introduce a queen, and that is by the hatching-brood plan. Take two or three frames of brood just beginning to hatch, and frames that have *no* unsealed larvæ, as it will die and smell badly, and the bees will have a bad job to clean up the combs, but no other damage will result from the dead larvæ.

Place these combs in a hive or nucleus, give ventilation and a sponge of water, and confine them this way for four or five days, queen and all, together. Then in the evening of the fourth or fifth day, take them out to a stand you wish them to occupy, and give them a small entrance at first, and they will soon work off nicely, and your queen will be safely introduced without any danger whatever. I introduced a fine imported queen this way O. K., a few days ago.

In regard to keeping breeders on a limited space, I will say that the bees do not try to supersede her, nor do I let them swarm, nor do I allow them to begin preparations for swarming, as I am into the hive at least once a day, and some days a half-dozen times, and you may be sure I know the contents of such a hive.

Yes, I know that bees are apt to be up to some new trick, but I usually get after them with a sharp stick when they begin to plank on me, and they soon cool down. To lay joking aside, I *make* my bees do as I want them to do, just as much so as my cow or horse. There is no use in letting a fine breeder lay herself to death in a year or two, as such queens as I want for my breeders are very prolific, as this is my first mark to look for when selecting a breeder, and should I begin honey-producing again, I should look altogether upon the prolificness of my breeders, together with honey-gathering qualities. Viciousness or fighters would be prized by me, and *never would I* try to breed this trait from my bees. As friends, I tell you it *means honey.* If I were running a yard for honey, I would wish to get the worst fighting bees that I could get. Dear friends, do not think strange of this, for I just mean it.

Friend L., I have gone off the track from your questions, but I ran out on breeders, and it naturally led me in that direction. If anybody has a bad, fighting Cyprian or Holy Land queen, just send her to me. JENNIE ATCHLEY.

Bees Killed by Lightning.

MRS. ATCHLEY:—Two years ago a swarm of bees was found in a large cypress tree. A large white-oak grew about 6 feet from the cypress, and during a thunder-storm the oak was struck by lightning; three weeks later the bee-tree was cut, when it was found that the lightning shock had killed every bee, as well as all larvæ in the tree. Considerable honey was found, which was uninjured. GEO. MOTT.

Spurger, Texas.

Self-Reliance in Bee-Keeping.

I think that I am one of the most ready persons you ever saw to receive counsel, and to learn from others; but there is one thing absolutely certain in bee-keeping, and that is, you must make up your mind to rely upon your own judgment, to a great extent, after you become familiar with the habits of your bees, and acquainted with the honey-producing flowers of your locality.

Now, listen: There is not a single bee-keeper in the land to-day that can *always* tell you just what is best to do at *all* times with your bees, even if you go into details about their condition or maneuvers. To be able to prescribe for some human cases intelligently, we *must see* the patient. So it is with bees. The best of apiarists may fail to reach your case without seeing the bees.

So, make up your minds to *make* your bees a success. Learn all you can from the bee-papers and the bee-kooks, then rely upon self for the balance, and do not lose precious time in waiting to hear from some bee-doctor regarding your case.

Now, if you will take my advice, I am sure you will succeed.

JENNIE ATCHLEY.

Implements Used in Bee-Culture.

As we have been using quite a lot of new fixtures this year, and there are many bee-keepers that would like to know about them, I will report as to their success, etc.

As a foundation fastener the Lowry Johnson is the best I ever saw. It is fast, and does the work well, always putting the foundation exactly at the right place, and fastens the foundation securely, too.

The new Bingham bent-nozzle smokers are just perfection. We did not like them at first, but now the boys won't have any other. We are using a "Doctor," a "Conqueror," and several smaller ones, and I tell you they are *the* smokers. Our bees are in a grove, and we burned forest leaves by packing them down hard in the fire-pot or stove of the smokers; and, in fact, we can burn almost anything in them.

Then last, but largest, if you want to see nice work, use Root's dovetailing machine. We have used one this year, and it turns out *first-class* work all the time.

Oh, yes, I almost forgot the Daisy Spring wheelbarrow. When you try one of these, you will not be without it, as it is the handiest tool in the apiary, ready to haul anything. JENNIE ATCHLEY.

Onion Juice, if instantly applied, will allay the pain caused by the sting of bees or other insects.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

Oct.12.—Susquehanna Co., at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Oct. 18-20.—Missouri, at Pertle Springs, Mo.
P. Baldwin, Sec., Independence, Mo.

Dec.12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE PRES.—J. E. Crane.......Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the BEE JOURNAL for one year, for $1.70.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

See Our New Premium List on page 389, and then decide to get some of the premiums offered for securing new subscribers for the BEE JOURNAL. We want every one of our present subscribers to help us increase the number of our regular readers. Will you see what you can do toward it?

QUERIES & REPLIES

The Grading of Comb and Extracted Honey.

Query 890.—1. How many grades, each, in your judgment, should there be for comb honey, and for extracted honey? 2. Please name the grades you would have?—Honey Dealer.

I have had no experience.—J. E. Pond.

Three grades—Fancy, No. 1 and No. 2.—H. D. Cutting.

Three grades—Best, Fine and Grade. —Will M. Barnum.

Ordinarily two; in some seasons three. —Mrs. L. Harrison.

Three grades for comb honey—Fancy, No. 1 and No. 2.—Eugene Secor.

1. Three. 2. Best, or XXX; Medium, or XX; and Dark, or X.—G. M. Doolittle.

For extracted, about three grades—First, Second and Third, according to quality.—E. France.

I have had so little experience in grading honey that my opinion would not be worth anything.—M. Mahin.

1. Three grades of comb and the same number of extracted. 2. For comb—Fancy, No. 1, and Light Weight.—J. H. Larrabee.

About two, not over three each for either comb or extracted honey. I would name them—Extra White, Choice Honey, and Buckwheat Honey.—C. H. Dibbern.

The number of grades depend upon the market and taste of customers. It is well to have several grades of shade, of flavor, and of condition.—J. P. H. Brown.

I would certainly make three—1st Class White, Imperfect White, and Dark. I have had too little experience to speak *excathedra* in this matter.—A. J. Cook.

I do not believe in having too many grades—three or four of each—and I would simply name by number, as No. 1, No. 2, No. 3 and No. 4, as these numbers are understood all over the world already. Calling by long names, as "White Extra," "White Medium," "Dark," etc., is no better, if as good, as the numbers.—Mrs. Jennie Atchley.

About four for light comb honey—Fancy, No. 1, No. 2, and No. 3; the same for amber comb, and for extracted honey perhaps one less grade would do. —R. L. Taylor.

The grades adopted by the North American at Albany in 1892. See report. The grading adopted a year later will do very well for "sugar-honey!"—P. H. Elwood.

1. That depends upon the market. I do not think it is possible to establish a general system of grading honey. 2. First and second quality, and then class all the rest as poor, or "off" honey.—Emerson T. Abbott.

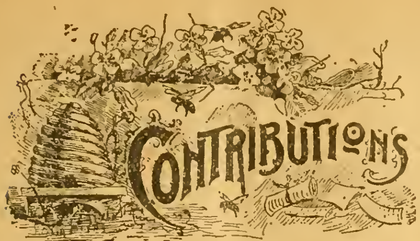
Two. All perfectly finished white sections to be first grade, and travel-stained or uneven surface not completely capped, the second grade. I would make three grades of extracted honey—White, Amber and Dark.—Mrs. J. N Heater.

1st and 2nd grades for comb honey of each kind, say for basswood, clover, etc. Sometimes we have but one grade of extracted, as it may all be No. 1. At other times the flow may be mixed, necessitating two or more grades.—S. I. Freeborn.

For comb honey of good quality, I would have three grades, which I call "Select," "No. 1," and "No. 2." Another grade may be made for that which is not so salable. For extracted honey of good quality, two grades are sufficient.—James A. Green.

Read up the reports of disscussion at last two North American conventions. On page 411 of this number of the Bee Journal is given the decisions of the Washington convention. Still, that will hardly stand the test of practical use, and the thing may need further overhauling.—C. C. Miller.

I have but *two* grades—Light Colored and Dark Colored. This means honey gathered in the clover season, which gives us *white* honey; and honey gathered in the fall from the asters, etc., which gives us a *dark* honey. I protest against any further classification. It is a wonder to me that those restless individuals who clamor for classification of honey, have failed to see that *too much "grading"* has put the producers of agricultural products at the *tender* mercies of the sharpers.—G. W. Demaree.



Proper Size of Brood-Chamber Considered.

Written for the American Bee Journal
BY G. M. DOOLITTLE.

From the enquiries I receive, it would seem that some of the readers of the AMERICAN BEE JOURNAL do not understand why it is that I should recommend a hive holding 1,000 square inches of comb, as the right size for a brood-chamber, and then hive swarms in a hive so constructed that there is only enough room for less than 700 square inches of comb. The Good Book says we "should always be ready to give a reason for the hope that is within us," and what is applicable to spiritual things may often be advantageously applied to worldly things, hence I will try to give my reasons for thus using and contracting hives.

To best explain, I will give the reader a little view of brood-rearing as I find it in this locality, after careful experiments which I have conducted for years.

One queen lays all the eggs which are to become the future bees for honey-gathering or otherwise. These eggs hatch in three days, so that a small larva takes the place of the egg; this larva is fed on chyme for six days, during which it has grown from a mere speck so as to nearly fill the cell, at which time the cell is capped over. During the next 12 days this larva passes through the transformation process, "from the caterpillar to the butterfly," and at the end of that time comes out of the cell a perfect bee, making a period of 21 days in all from the time the queen lays the egg till the bee bites off the covering to its cell. Very warm weather hastens the process of development during all the stages, and steady, cool weather retards it, so that I have known the period to be shortened to about 18 days, and lengthened to nearly 24, but 21 is the rule.

Now, the Creator of all things designed that bees should "multiply and replenish the earth," the same as all animated things, so He gave them as strong instinct to prepare for swarming, as we see manifested in birds to build nests to lay their eggs and rear their young. This instinct causes the queen to greatly enlarge the circle of brood during May and June, so that, when the height of her ambition is reached (from June 10th to the 20th) she lays from 2000 to 3000 eggs daily. From experiments conducted along another line, I find that at this season of the year none of the worker-bees, in a colony being in a normal condition, exceed 45 days as to length of life; so, as the time, 21 days (from the egg to the perfect bee) is to 45 days (the life of the bee at this season of the year), we can find the reason for swarming, through the crowding of the hive. It will be seen that the queen can place two and one-seventh generations of bees on the stage of action, to where one dies off; hence comes swarming, with both bees and queen bending every energy in that direction.

Swarming accomplished, the same instinct that causes the birds in midsummer to cease building nests, and prepare for a journey South in early fall, seizes hold of both bees and queen, the bees now bending every energy toward securing a supply of food sufficient to carry them over winter, while the queen keeps "pace" by laying only enough eggs to keep good the population of the hive. From this understanding of the inside workings of the hive I drew these conclusions:

First, that up to the time of swarming I desired a brood-chamber of the size occupied by the average queen, plus the pollen-room necessary for the brood. Careful experiments gave this as 1,000 square inches of comb, or eight Langstroth frames, or nine of the Gallup, which I use.

Second, the desire for swarming gratified, two-thirds of the room needed before is now amply sufficient to keep the population of the hive good, and care for the less amount of pollen now required. Besides, with the desire for less brood, pollen is gathered in far less quantities, so it is a rare thing for me to find half as much pollen in the combs surrounding the brood at this season of the year as I do in May; hence it is not often that I have any pollen stored in the sections, as some complain of.

Again, the bees gather no pollen, as I conclude, from basswood, which gives us our main honey-crop; for I have watched for hours at basswood trees to find a bee with any pollen in its pollen-baskets. Where white clover gives the main crop of surplus honey, this contraction system may give some pollen in the sections; yet I think that if used on the above plan, not enough to do much damage.

What we all should strive after, if we would be successful, is to let the bees carry out their natural instincts as much as possible, and at the same time turn those instincts to the best possible advantage to ourselves. In the above I think I have made it plain how it can be done. Herein, also, lies one of the reasons why I prefer the Italian bees to any of the others. All know that, after swarming, they show a greater desire to retrench in brood-rearing than any other race of bees, and at the same time gather unlimited quantities of honey. With the above management I throw all the early honey into the sections, while later, when the honey is of inferior color, I get enough stored in this two-third sized brood-chamber for winter.

One other item: Some apiarists seem to suppose that the bees seen in a swarm having pollen on their legs, are bound to store this in the hive somewhere, and that, if treated *a la* Hutchinson, by using empty frames below, said pollen must go into the sections. This, I think, is a mistake; for as far as my experience goes, it is "scuffed off" and thrown out at the entrance. I know it is, where the swarm is hived in an empty hive, for the bees have no place to put it till comb is built, and have no use for it during the first three days in any event, unless a frame of brood is inserted by the apiarist.

Borodino, N. Y.

Bees in the Open Air, and Other Bee-Notes.

Written for the American Bee Journal

BY JOHN D. A. FISHER.

A few days ago, Mr. Lewis D. H. Brown, of Woodside, N. C., found a large colony of bees on a tree in the open air. They had built four large pieces of comb about 18 inches long, and several smaller pieces. These bees were certainly in a good condition to be out without any protection whatever. They had certainly built comb vigorously, and from the amount of comb they had, they might have pulled through the winter. At least I should have been glad to have seen them remaining on the tree the coming winter, thus testing the matter.

Mr. Brown transferred the bees and comb into a hive, and hopes that they will, with care, come out all O. K.

THE HONEY CROP SO FAR.

The honey crop with us up to date (Sept. 1) has been a moderate one—about 25 pounds to the colony, spring count. At one time, about the last of May and the first of June, we had a very flattering prospect for a large yield of honey, but this prospect was shut off all at once. Since then the bees have been gathering just about enough honey to live on, and to keep brood in the brood-nest.

THE FALL HONEY CROP.

We are looking for a good fall crop of honey. Golden-rod and the asters will soon begin to bloom. These flowers always yield honey, and sometimes they yield honey wonderfully. The indications are that we are going to get a good crop of honey this fall.

GOLDEN ITALIAN BEES.

I am well pleased with the golden Italian bees. They are very prolific and hardy. They are very smart and industrious, ever on the lookout for something sweet. They are a little inclined to rob, or at least they have so proved themselves with me. As I have had them but one year, I will say I think that they will prove to be good honey-gatherers.

INEXPERIENCED BEE-WRITERS.

Some time ago it was hinted by some one that persons without experience should not write for the bee-papers. This, as I take it, would shut off all of us who are beginners in the bee-world. Should we not be allowed to crawl a little once in awhile? If not, when do you (I mean the man who wrote for us to keep out of the way) expect us to walk? If in our childhood in the bee-world we think that we have found a gold-bug, let us have our say about it. Let us tell our "papas" in the bee-business about it. If our veteran fathers say, "My son, you are mistaken; that is nothing but a black bug," all right, we have learned a lesson. See? But if the bug proves to be golden, then let them tell us so, thus helping us on. Why not?

Then, Mr. Editor, you are young now, and have an able corps of veteran writers at your command. We boys may be your right-hand men in 25, 30 or 40 years from now. See? Let us begin to walk now, so that we may be strong men then.

Woodside, N. C., Sept. 1, 1893.

Api-Phrenology—Some Ideas on a New Bee-Subject.

Written for the American Bee Journal

BY DR. J. D. GEHRING.

Mr. Luthy had "kept bees" for about 15 years, he told me; but as he was in other business he never allowed his bees to increase beyond 12 or 16 "stands." His way of preventing increase was a good thing for me, who was only a beginner when I made his acquaintance.

One day in the early part of June, he sent me word that there was a big swarm out, and if I wanted it for a dollar I should come and "hive it." Of course I went. Such an opportunity to secure "increase" was not to be despised.

Before that season was over, Mr. Luthy wanted to know why he got so little surplus honey, and I got so much. At the end of the next season he was so disgusted with his bees that he offered me "the whole outfit" very cheap, and I bought him out. After I had bought his bees I told him why I got more honey than he, from a less number of colonies than he had.

Some people keep bees a good many years before they learn that it's the young colonies that get the honey.

Well, as before stated, I went down to Mr. Luthy's that June day to hive that swarm. I had a high degree of confidence in his knowledge and ability as a bee-keeper, and he shared that confidence. He knew that I was "only a beginner." But he did not know that I had studied "Bees and Honey," and all the bee-literature I could get hold of, for a year before I hived that swarm. Nor did he know that, before I took to bees, I had dabbled in phrenology to some extent, and had a fanatical idea that that "Science" could be applied to bees as well as to "humans."

Now, it is a well-known fact to bee-keepers, that scarcely two of them can be found who can agree in their theories and views about bees. Well-informed though they may be, there are always a few things to speculate and experiment on, and, as each one has his own way of doing things, so each one learns things best his own way. They are also, as a class, "awfully sot" in their opinions—a quality of character which seems to be essential to a successful bee-keeper. A want of stick-to-ativeness accounts for many failures in all things.

As Mr. Luthy and I sat under the shade of an apple-tree, watching the eager going-out and coming-in of the bees, he said abruptly: "Bees are as blind as a bat, Mr. G.; did you know it?"

I confessed promptly that I did not, and rather modestly expressed a doubt on the subject. But he met that doubt by saying, "That's because you don't know much yet about bees. But I can prove my assertion to you in two minutes, right here and now. See, here! I place myself right before this hive (suiting the action to the word), where the bees are coming and going by the hundred. There! don't you see how they run against me? Would they do that if they could see me? We don't learn everything about bees in bee-books, you see!"

Mr. Luthy's "demonstration" hadn't convinced me, but I knew it would be useless to argue with him on the subject, so I took my new swarm and went home. After putting the hive in its place, I took my camp-stool to a shady spot and sat down to watch those bees go to work. It was about 3 o'clock, p.m. The weather was very warm. In a few minutes I was fast asleep, and dreaming.

I was sitting with Mr. Luthy under an apple-tree in his apiary. He had just demonstrated to me in a practical way (?) that "Bees are as blind as a bat." I considered the proof insufficient, and the assertion too bold; and, forgetting my youth and inexperience as a bee-keeper, I began to argue and reason with Mr. Luthy, as nearly as I can now recall to memory, like this:

"Mr. Luthy, bees have some sort of sense. You may call it instinct if you like, but I challenge you to prove that it isn't sense. Now, if they have sense, they must have some sort of intelligence; and intelligence implies the possession of intellect. The intellect, no matter what the degree, must have an organ through which to manifest itself. That organ we call the brain. Bees have a brain. That brain is phrenologically divided into organs and faculties. I don't claim, of course, that they have as many of these as man, but I do claim that those peculiar to them are as sharply defined, functionally, as are the faculties in the human brain.

"Now, I shall demonstrate my theory to you just as conclusively as you did your assertion about bees being blind; though I can't do it in 'two minutes.'"

I now went to one of the hives, and securing a large drone, I again took my seat and said to Mr. Luthy:

"I will begin my demonstration by delineating the mental and moral characteristics of this drone-bee.

"The drone is a queer sort of a chap, as you have no doubt found out. He is both conspicuous and insignificant—just like some men. He is, by nature and habits, first cousin to the professional 'tramp.' He won't work—not even to keep from starving to death. He never fights—not even to save his life—to say nothing of his reputation. He never goes out for exercise even, except when he goes out on a spree. Like his cousin, the tramp, he seems to live to eat, and for nothing else."

Next week, I am going to give you plain phrenological reasons for all these peculiarities.

Lawrence, Kans.

(Concluded next week.)

Cellar-Wintering of Bees, and Other Items.

Read at Howard Co., Iowa, Farmers' Institute

BY C. E. TEETSHORN.

There are two methods of wintering bees—cellar-wintering and out-door wintering. I hold that cellar-wintering is the more successful and economical method in this latitude.

When I think winter has set in in earnest, generally about Nov. 20th, I carry my colonies into the cellar (leaving the caps of the hives in the bee-yard), and tier up the hives according to the number to occupy a given space.

I next attend to the matter of ventilation, thorough upward ventilation. I open at least one-third of the top of the hive, leaving the cluster of bees absolutely exposed. In this lies the secret of successful cellar-wintering. The moisture from the bees ascends to the top of the hive, and if the hive is tight, condenses there and runs back upon the cluster of bees and upon the comb, resulting in dampness, mold and death to the colony.

The bees will not fly out if kept in a dark part of the cellar.

As to the temperature of the cellar, I would say that I strive to avoid too high a temperature. I prefer the mercury at all times slightly under 50°. My cellar is simply a hole in the ground under my house, and water, nearly always, oozing in at one side and working out by way of the drain. In this cellar I have wintered bees every winter for 25 years, and with marked success.

After the bees have been placed in the cellar, and the hives ventilated as I have indicated, they should not be molested until taken out in the spring and placed upon the summer stands.

During the winter is the proper time to prepare hives, sections, etc., for the next season. I have made considerable use of boxes holding eight to ten pounds of honey. More honey can be procured in large boxes in a given time, as there are not so many starting points and not so many joints to seal with propolis as when sections are used.

The only way to secure straight combs in sections is by the use of separators or comb foundation. I place a V-shaped starter in each section.

Cresco, Iowa.

The Honey Market and Crop in Minnesota.

Written for the American Bee Journal

BY C. THEILMANN.

I was at Minneapolis to attend to setting up some honey and supplies that I sent to the Minneapolis Exhibition, which is held from Sept. 6th until Oct. 7th; and I was also there to find a market for my honey crop, which is comparatively small, but of good quality. In looking around the two cities of St. Paul and Minneapolis, I found a big difference between J. A. Shea & Co.'s quotations in the AMERICAN BEE JOURNAL, and the actual price of the honey market; besides an incorrect representation on supply and demand.

I am well acquainted in the two cities, and my honey product, heretofore, always sold readily at the highest prices paid. The fact now (on Sept. 6th and 7th) is, that I could not sell a pound of honey to any one of my old customers, except 100 pounds to a grocer to whom I sold honey for about 15 years. All the commission men refused to buy honey for more than 12½ cents per pound, and Fancy at that. In the two cities there were three or four carloads of California honey, which is sold from 12 to 14 cents per pound, and more offered to deliver at 12 cents, for nice, white comb honey, although Eastern honey sells better to customers. There is not a great deal of Eastern honey there. Wisconsin and Iowa had sent in some lately, also small lots of Minnesota honey can be seen.

The demand is very limited. I sent 500 pounds to each of two of the largest honey dealers more than a month ago, of which not one-fourth was sold the other day. It is as fine honey as I ever produced, and with but little (no white) honey on the market at the time shipped.

I give the above statement for the good of the bee-keepers at home, who expect to get 18 to 20 cents for their honey, after seeing J. A. Shea & Co.'s quotations. I asked Mr. Shea himself, if he wanted to buy any honey. "No, no; I don't want to buy at all," was his reply. I would recommend that every bee-keeper endeavor to correct the quotations if found incorrect.

As far as I can learn of Minnesota's honey crop, it is about one-third of an average. The southern portion has more clover honey than ever heretofore. (White clover was never much of a crop, anyway.) Linden was good for about four days, and then it was killed by a little rain at noon, with the hot sun before and after. There was only a little scattering and crippled blossoms left, which ended the white honey crop. No honey was coming in for about five weeks after that, on account of dry weather. For the past two weeks some fall honey came in, to fill up the brood-chambers, and most of the colonies worked a little in the sections, but now it is too dry again, and bees are flying considerably, but store little in the sections.

The north and northwestern part of this State have but little honey. Some of the bee-keepers had to feed their bees to keep them alive part of the summer. The winter and spring losses were very heavy all over the State. Some who had from 150 to 200 colonies lost nearly all; others fared better, but on the whole, probably 65 per cent. were lost by May 10th.

I commenced with 225 colonies. After losing one in wintering, 30 dwindled in April, and some I sold, they produced about 8,000 pounds of white comb honey, and there is about 2,000 pounds of mixed honey on the hives now. They increased (after doing my best to prevent it) to 330 colonies—over 100 colonies more than I care to keep. It is hard for me to kill bees, and there is but little chance to sell them. The brood-chambers are pretty well filled with winter stores now.

I intend to attend the bee-keepers' convention at the World's Fair in October. Every bee-keeper who expects to go to the Fair should arrange to go to the convention and get acquainted with the "big guns" and other bee-keepers, while they have the chance to "kill two birds with one stone." It will surely be a treat to every bee-keeper.

Theilmanton, Minn., Sept. 11, 1893.

Farmers as Bee-Keepers—The Other Side Discussed.

Written for the American Bee Journal

BY T. I. DUGDALE.

Having noticed that considerable is being written of late on the above subject, I thought perhaps a few words on the other side might not be out of place, especially when viewed from the standpoint of a honey-producer.

Perhaps before proceeding further with this article, it might be well to say that I may have some "big guns" trained on my camp before closing, but as the guns are so large, and the target so small, I propose to take the chances of getting hit.

Now, I wish to inquire who it is that so earnestly and frequently advises farmers and horticulturists to keep bees. Is it those whose occupation is the production of honey, or by those interested in the sale of bee-keepers' supplies, which may consist of anything from a queen-cage to a self-hiver, etc.? and by this last I wish to be understood as including the whole army of those engaged in the supply business. I submit the question for the reader to answer.

But let us look a little further, and see whether or not it is advisable to advocate this wholesale keeping of bees as a sort of "side show," to be carried on in connection with farming. I say no; for during the last 20 years, of all the farmers I have known to engage in bee-keeping, none of them ever got enough honey to pay the first cost of outfit and interest on the investment, and throw their labor in gratis. I find that, as a rule, farmers make what might be termed "the wait and see if they (the bees) are going to do anything" kind of bee-keepers, and have neither the knowledge, time, nor inclination to give their bees the care which they require in order to meet with even moderate success.

Perhaps one reason for so much neglect is the fear of being stung, which can only be fully overcome by long and continued practice in handling, and not by such flowery tales as some writers would have us believe. Then the bees kept by most farmers are allowed to re-queen themselves from scrub stock, and are (to use a street phrase) "holy terrors" to have around, and are a source of constant annoyance to the practical apiarist whose yard is within range of their flight, and who wishes to keep the improved and more desirable races of bees, that are a pleasure to behold.

But perhaps the greatest evil which is being done by this slip-shod class of so-called bee-keepers, is that when they do perchance have a colony of bees that happens to be in the proper condition to store a little honey, they remove it from the hive and start for town forthwith, not even stopping to scrape the propolis from the sections before selling it for what they are offered (which is usually an insignificant sum), and take it in trade, thus establishing a price which the bee-keeper cannot raise, and, when asked why they sold so low, they will tell you, "Well, I didn't have but a little, and thought it wouldn't pay to bother much with it."

Now let us see how it is with the dealer in supplies. Do such men make profitable customers for them? Again, I say no; and why? Because (a woman's reason) they don't want much any way, and seldom order that little until it is too late to use it, and then grumble and find fault because they do not get it the next day; whereas, the successful bee-keeper estimates ahead what he expects to need, and orders accordingly, when a few days of unavoidable delay may not cause so much worry and disappointment. Why, even such men as Doolittle realize this fully, as told by him when he says that a box-hive is as good for a farmer as any, or words to that effect!

In conclusion, I believe that most farmers can buy a sufficient quantity of honey for family use much cheaper than they can produce it, and if more of them would practice this plan, I believe much good would eventually come of it, and no fear of any lack of bees to fertilize the blossoms of fruit, for in nearly every neighborhood there would be a fair and encouraging outlook for some experienced and progressive bee-keeper, who in turn, no doubt, would not be slow to improve the opportunity thus offered him.

West Galway, N. Y.

◆

Have You Read the wonderful book Premium offers on page 389?

Important Fall Operations for Wintering Bees.

Written for the "Country Gentleman"

BY W. Z. HUTCHINSON.

Winter comes creeping on apace and will soon be here. It is none too soon to be making preparations for the wintering of bees. "An ounce of prevention is worth a pound of cure," and now is the time when the prevention part of the programme may be carried out. In most parts of the country the honey-flow is over. Where there has been a good fall flow of honey there will probably be no necessity of feeding; otherwise it is wisdom to examine all colonies as to the amount of stores on hand. It is not necessary to even weigh every colony; weigh an empty hive and a set of empty combs. To this weight add about five pounds for the weight of the bees and what bee-bread there may be in the combs. Then decide upon how much honey should be allowed to each colony.

Most authorities advise 20 pounds for in-door wintering, and 25 or 30 for out-door. With 8-frame Langstroth hives, I have usually allowed 5 pounds less than this, but have sometimes been obliged to feed the bees in the spring, or else equalize their stores. It is well-known that some colonies consume much more in winter than do others. By examining them all in the spring, and equalizing the stores, spring feeding is seldom needed.

AMOUNT OF WINTER STORES.

Supposing that an empty hive and combs weigh 15 pounds, and the bees 5 pounds, then, for in-door wintering each colony ought to weigh at least 35 pounds. Weigh several hives until one is found that weighs this amount. "Heft" it carefully several times until the weight becomes impressed upon the muscles and brain. This hive is now the pattern. By going through the yard and lifting the hives it can quickly be determined which are much heavier or lighter than the "pattern." It may sometimes be necessary to return to the original hive and try it occasionally, to strengthen the memory. It may be necessary to weigh those that are so near the required weight that there is doubt as to the amount of stores they contain.

This method of guessing the weight of a colony with considerable accuracy was suggested to me by Mr. R. L. Taylor, Manager of the Michigan Experiment Apiary. Any colonies that are lacking in stores must of course be fed until they are brought up to the regulation weight.

FEEDING THE BEES FOR WINTER.

The feeding ought to be done as early as possible, that there may be time for the bees to ripen and seal the honey. If any of the colonies are somewhat deficient in numbers, and there is time enough, it may be well to feed slowly, as this will stimulate brood-rearing.

There is no better food for wintering bees than pure cane-sugar. Granulated is probably the cheapest, as it is the driest. It is also almost certain to be pure. A certain number of pounds of water may be brought to a boil, then twice the number of pounds of sugar gradually stirred in, and the syrup again brought to a boil, when it will be ready to use as soon as cool enough. If there is any trouble from the granulation of the syrup in the feeders, or there is fear that it may crystalize in the combs, a little (say 1/5) of honey may be added.

Of course some sort of feeder is needed, but it matters little what it is so long as it allows the bees to reach the food, and excludes outside bees. A tin pan set in the upper story, and a cloth laid in the pan to keep the bees from drowning as they sip the feed, will answer every purpose.

UNITING THE WEAK COLONIES.

It often happens that some of the colonies are too weak in numbers, and the proper remedy is to unite two or more colonies in one hive. The only difficulty in uniting is that the bees sometimes quarrel. If one of the colonies is queenless, there is less likelihood of quarreling. The proper way is to keep the best queens, killing the others a day or two before the uniting is done. Unite the bees upon the stand of the colony having the queen, as queenless bees will more readily give up their location and take up with a new one where they can find a queen. If the hives have loose bottom-boards, there is no better way of uniting than to simply set one hive on top of the other, with the bottom-board of the upper one removed. In a few days the combs can be looked over, and those containing the most honey, or those having brood, can be set into one hive, and the bees shaken from the remaining combs.

WINTERING BEES IN CELLARS.

When the colonies are all sufficiently strong and well supplied with winter stores, the next thing requiring attention is that of protection for winter. If they are to be wintered in the cellar no more attention is needed until it is time to put them into the cellar, which should be done after the season is so late that the chances for the bees to fly again are very slight, and the time when freezing weather may be expected is near at hand. The idea is to give them as late a flight as possible, but not to let them be caught out in the first snow-storm of the winter. In this State (Michigan) this time is usually in the last half of November.

Choose a time when the temperature is falling, as the cluster will then be contracting, and the bees will be less likely to fly out when disturbed. If the hives are raised two inches from the bottom-board at one end the bees, if any are on the bottom-board, will crawl up and join the cluster, and the admittance of the cool air will cause the cluster to retreat higher up among the combs; thus the hive without the bottom-board can be carried in with little danger of bees giving trouble from flying out. The hives should be stacked up in the cellar with blocks between them, the space below each hive allowing all dead bees and refuse to drop down away from the cluster, and affording abundant ventilation.

OUT-DOOR WINTER PROTECTION.

If the bees are to be wintered in the open air, the matter of protection cannot be looked after too soon. Good, dry sawdust or chaff makes good protection. Ground cork is the best non-conductor of heat, and remains perfectly dry, but is too expensive and difficult to get for general use. A much less quantity is needed, however. Small quantities may sometimes be secured of grocers that retail California grapes.

If the bees are packed late, after the time for them to fly, the hives may be gathered into long rows, stakes driven down at the front and back, and boards set up, the spaces between the hives and between them and the boards being filled with packing material. There should also be packing over the hives, and a roof over the whole to keep all dry. A chute is needed in front to allow the bees to fly if there comes a warm day in winter, also in the spring.

Many bee-keepers use a single box for each hive. This makes less complication in getting the bees into long rows in the fall, and then back to the proper places in the spring, and, all things considered, is preferable. If packing material is plenty, there need be no bottom in the box, letting the packing material rest on the ground. The greatest objection to this plan is the extra work required in cleaning up the packing material in the spring when the bees are unpacked. A little sawdust scattered about the hive, however, is no objection.

Flint, Mich.

Bee-Keeping in Kansas—Some Queen-Bee Experiences.

Written for the American Bee Journal

BY W. C. ROBB.

Careful inquiry among the leading bee-keepers reveals the fact that the present season has been rather a poor one, and the yield of surplus honey not up to that of former years.

Last winter was a very severe one in our locality, and a large per cent. of the bees that were left on the summer stands perished from lack of stores, and continued cold weather, followed by a cold, wet spring. Very little honey or pollen was gathered from the fruit-bloom, and white clover was badly winter-killed, so that it was midsummer before the bees were in a condition to store much surplus.

There are about 600 colonies of bees in our city, and I have heard of no really large yields. Our bees worked nicely on sweet clover, an abundance of which grows in and near the city, but it seemed to yield no nectar. Basswood lasted about a week, and gave us about all the honey we have taken so far.

Plenty of rain has fallen, and fall flowers are blooming profusely. Heart's-ease is in full bloom now, and Spanish-needle will follow soon. Late swarms will have to "hustle" to get themselves in good condition for winter.

I wintered my bees last winter on the summer stands, and lost 7 colonies out of 19. I think I will put them into a cellar this winter, and see if I meet with any better success.

I found two colonies queenless last spring; and this brings me to a point where I desire to relate a little experience I had with two somewhat noted Southern queen-breeders. I wrote to one for an untested queen, stating that I desired to add some new blood to my apiary, and requested him to send as good stock as he could for the money, $1.00. The colony that I intended to put her with was a good, strong one, both in stores and bees. In about ten days I received a small, yellow queen, but little larger than one of my leather-colored workers. The bees sent in the cage with her were correspondingly small, and no better colored than the bees from my own queens. I was not very well pleased with her, to say the least, but as I did not expect "the earth" for a dollar, I introduced her successfully, and patiently awaited results.

As "coming events cast their shadows before," it did not take me long to discover that I had been "sold." Upon examination two weeks after the queen commenced to lay, I found about 75 per cent. of drone-brood, the greater portion of which had been laid in worker-cells. In four weeks I had the finest colony of drones a modern bee-keeper ever saw. My friends, to whom I showed them, pronounced them by far the largest race of bees they had ever seen, but seemed to think it strange that any little ones should be there! She continued to rear drones until about the middle of June, when I found about half a dozen queen-cells, and no unsealed brood. I saved two of the cells, and they both produced dark-colored queens.

Now, I have arrived at this conclusion in regard to the matter, that an old, worn-out queen was sent me instead of a young, vigorous one, as I had a right to expect. Had the queen been a young one, I would have been perfectly satisfied, but an old, worn-out queen that has been mismated I consider expensive at a dollar.

I then sent to another queen-breeder for a tested queen, paying $1.50 for it. By return mail I received a "golden beauty," sure enough. I have several young queens from her, and I think that I have some of the finest bees now in northeast Kansas. Next spring, my partner, F. W. Campbell, and I, intend to favor the last mentioned dealer with an order for one of his finest breeders, for we are determined to have the finest strain of bees that money will buy.

Atchison, Kans., Aug. 26, 1893.

Worth $100 a Year.—I subscribed for the AMERIBAN BEE JOURNAL, and in it I found a letter from a lady bee-keeper, telling how to prevent after-swarms. That put $100 into my pocket the first year.—A. M. FISK, North Freedom, Wis.

Have You Read page 389 yet?

LETTER BOX
REPORTS, PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Best Crop in Four Years.

We have had the best honey-flow here since I have kept bees, and that is four years. My average is 55 pounds per colony. I put into winter quarters, last fall, 12 colonies, and had 12 last spring. I increased to 24 colonies, and got 660 pounds of honey. My best was 114 pounds, and the least was 27 pounds. I winter the bees on the summer stands, some in chaff hives, and some in single-walled hives. I have chaff on top of all. The honey is all first-class this year—clover and linden or basswood honey. There were lots of bees that died last winter and spring; some lost ⅔, and some ½. They mostly died with the diarrhea, with lots of honey in the hives. None of the losers had chaff on top, or take a bee-paper.

MILTON LIMES.

Ridgeway, Ohio, Sept. 18, 1893.

Honey Crop a Complete Failure.

The honey crop is a complete failure in this locality. I haven't taken one pound from over 100 colonies this year. Other bee-men are in the same fix, and most of the bees will require feeding to get them through the winter. But let the good work go on. Where there is a will, there is a way.

J. R. ESKEW.

Shenandoah, Iowa, Sept. 18, 1893.

A Beginner's Experience with Bees.

Two years ago my brother was in possession of 34 colonies of bees in chaff hives. As he could not keep them any longer, I bought the outfit of him for $175. In the succeeding year (1892) I had very few leisure hours, and I had to feed my bees all summer, for there was not one pound of honey produced to winter on. I was somewhat disappointed in the first year's work, and did not give them proper attention nor food until late in October. Of course, all could have told me that I would not save one colony for 1893, but as I was inexperienced, this was not the worst I treated them.

Late in November I moved them into an old, overground building on my father's farm. In such position they were left undisturbed until January. By this time Mr. Joseph Guenther, a prominent bee-keeper, visited me, and told me that I would not save one of my bees; but I thought he would be disappointed by May 1st, when I should take out my bees in good condition.

To my surprise I found my bees had died down to 6 colonies, and when removed to the summer stands they dwindled down to nothing.

Of course, wanting to be a bee-keeper, I picked up again after the loss, and bought 13 colonies, for which I paid from $4.00 to $7.50 each. Some of them had quite a long distance to go on the cars. But now you should see how well I feel, as I produced 2,600 pounds of extracted honey, besides an increase of 7 colonies.

As all of my honey was produced from white clover and basswood, I think there are no better honey-plants than these. Therefore, I am proud to say that Wisconsin is not one of the poorest States for bee-keeping. If it had not been for the long and hard winter, I would call Wisconsin next to the Sunny Southland, that Mrs. Jennie Atchley praises so much.

NICK N. GEEHL.

St. Lawrence, Wis., Aug. 20, 1893.

Opening and then Sealing Cappings.

As Mr. H. C. Finney, on page 300, asks the question about the uncapped brood, I wish to say a few words about it. I don't expect to answer the question, but some one may reply to it. I have seen colonies several times with brood uncapped, at or near the age he says. The brood is uncapped and capped again, the last cappings of the cells are generally drawn out nearly 1-16 of an inch longer. I think it is probably imbecility of the queen that causes the uncapping of the brood, as it is generally an old queen that has such work. To give a young queen stops it for me. I think the queen is old, and becoming impotent, or about to fail. Now I would like to see what others have to say about this question.

R. A. SHULTZ.

Cosby, Tenn.

Queen and Worker in the Same Cell.

On page 140 is a question that I sent you, the answer to which is only a guess, and not satisfactory, for the following reasons:

1st. When the parties who saw the cell opened, learned I was going to send it to you for an explanation, they remarked that you would simply say you did not believe they were so hatched.

2nd. The cell had been cut out after being sealed up, and was being hatched in the house under a wire-screen.

3rd. The cell was built with an enlargement on one side, the same extending about ⅔ the way down towards the base of the cell. The bees both rested on the base of the cell, the head of the worker nestling in the legs of the queen, and the head of the queen filling the point of the cell down to the head of the worker.

I hope some one can give me a satisfactory explanation. I have an idea about it, but prefer to hear from others first.

Cobham, Pa. D. L. McKean.

[Will some one who has known of a similar case, please reply, then perhaps Mr. McKean will give his "idea."—Ed.]

North American Convention.—We have received the following announcement from Secretary Benton:

COLUMBIAN MEETING OF THE BEE-KEEPERS OF NORTH AMERICA.

The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills.

PLACE OF MEETING.

A hall for the use of the Convention has been secured in the "Louisiana Hotel," at the corner of 71st street and Avenue B, only a few minutes walk from the south entrance to the World's Columbian Exposition. This hall is large, well-lighted, and in a quiet place.

HOTEL ACCOMMODATIONS.

The "Louisiana Hotel" itself will furnish comfortable accommodations to members at very moderate prices. For a small room two persons pay daily 75 cents each. Larger rooms occupied by two, at $1.00 per person. Four persons occupying a room having two beds will pay 50 cents each. Meals can be obtained in the hotel at reasonable rates, or at numerous restaurants in the vicinity. It is best to engage rooms by letter beforehand.

The proprietors of the "Louisiana Hotel" give us the use of the hall free, expecting that all the members, so far as possible, will take rooms with them, and as the prices are moderate, and rooms are neat and convenient, it is but just for all who can well arrange to stop there to do so. For this purpose, address, Manager "Louisiana Hotel," corner 71st Street and Avenue B, Chicago, Ills., stating what priced room is wanted.

RAILWAY TICKETS AND BAGGAGE.

Most of the railways ticket to the Exposition Depot, near which the "Louisiana Hotel" is located, and baggage should be checked to that station, thus avoiding extra charges, as it is about seven miles from the city stations to the World's Fair Grounds. Information as to rates of travel, the time tickets are good, etc., can be obtained of all local ticket agents. From many points—especially from cities having numerous competing lines—excursions will be starting which will permit those who can take advantage of them to go and return at the usual rate for one fare, if not less than that.

Frank Benton,
Sec. North American B.-K.'s Association.
U. S. Dept. of Agricuture,
Washington, D. C.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal......	$1 00....	
and Gleanings in Bee-Culture....	2 00....	1 75
Bee-Keepers' Review........	2 00....	1 75
Canadian Bee Journal.......	2 00 ...	1 75
The Apiculturist............	1 75....	1 65
Progressive Bee-Keeper ..	1 50....	1 30
American Bee-Keeper.......	1 50....	1 40
Nebraska Bee-Keeper.......	1 50....	1 35
The 8 above-named papers	6 25....	5 25
and Langstroth Revised (Dadant)	2 40....	2 25
Cook's Manual of the Apiary	2 00....	1 75
Doolittle on Queen-Rearing.	2 00....	1 65
Bees and Honey (Newman)..	2 00....	1 65
Advanced Bee-Culture......	1 50....	1 35
Dzierzon's Bee-Book (cloth).	2 25....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
A Year Among the Bees	1 50....	1 35
Convention Hand-Book......	1 25. ..	1 15
Illustrated Home Journal ..	1 50....	1 35

The Great Chicago Fire.—No visitor can properly appreciate the Chicago of to-day—wonderful city that it is—without first viewing the city of 22 years ago from the platform of the great Cyclorama Building, on Michigan avenue, near Madison street; see the frenzied flight of the terror stricken multitude, gaze upon the thousands of burning buildings, falling walls, and smoking ruins. The great canvas tells the immortal story of the Chicago Fire more graphically, thrillingly and truthfully than could be done by a whole library of books. Here are some figures to remember:

Number of acres burned per hour, 125.

Number of buildings burned per hour, 1,000.

Number of people rendered homeless per hour, 6,000.

Value of property burned per hour, $12,000,000, or a million dollars every five minutes.

Loss, over $200,000,000.

People homeless, 100,000.

Number of lives lost, unknown.

If all the buildings burned in Chicago were placed end to end, it would make an unbroken row 150 miles long!

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the Bee Journal. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

ESTABLISHED IN 1861

OLDEST BEE-PAPER IN AMERICA

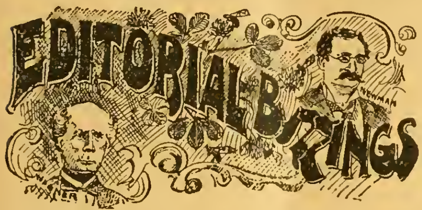
THE AMERICAN BEE JOURNAL

GEORGE W. YORK, Editor.

DEVOTED EXCLUSIVELY TO BEE-CULTURE.

Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., OCT. 5, 1893. NO. 14.



Dr. Miller, the President of the North American, has something to say about the place where the convention meets next week. It is found on the next page. Better write *in advance* for rooms, as the Louisiana Hotel is crowded all the time. Still, they expect to care for all the bee-convention people when they get there. Yet it might save you annoyance to let them know ahead just what kind of a room you want, and what day you will arrive at the Hotel. See Hotel advertisement on page 420.

◆

Bro. Newman, formerly editor of the AMERICAN BEE JOURNAL, we regret to learn is again unwell. He has had a hard struggle the past four or five years, having had several attacks of "la grippe," which each succeeding time naturally left him in a worse condition than before. We believe that nothing would help him so much as a trip to California—the land of luscious fruits and health-giving climate. There is scarcely anything that aids as much toward speedy recovery of health as a complete change of climate and surroundings. It beats swallowing several drug-stores, besides being less expensive. Bro. Newman hopes, and expects, to be able to attend the North American convention next week, to again greet his many bee-keeping friends.

The North American Convention next Wednesday, Thursday and Friday, promises to be a grand affair. In addition to the names published last week, we have received notice that the following will also be present:

Prof. A. J. Cook, of Michigan.
N. B. Gaylord, of Minnesota.
J. L. Welter, of Pennsylvania.
J. F. Michael, of Ohio.
Dr. Jesse Oren, Mrs. M. A. P. Oren, Miss Viola Oren, and Mrs. I. Hinskey, of Iowa.
R. C. Aikin, of Colorado.
Allen Pringle, Superintendent Ontario, Canada, Apiarian Exhibit at World's Fair.
W. C. Frazier, of Iowa.
Mrs. Oliver Cole and Fred H. Fargo, of New York.
Mrs. S. E. Sherman and Miss Pauline H. Gresser, of Texas.

◆

Bro. E. Whitcomb was again elected President of the Nebraska State Bee-Keepers' Association at its meeting in Lincoln on Sept. 14th. It shows that Nebraska folks know a good article when they see it, and mean to hold on to it when once they get it in their hands. This is another case of "right man in the right place."

◆

The P. L. Viallon Mfg. Co. has sold out to Mr. L. V. Esneault, of Donaldsonville, La., and the business will be continued at that place hereafter. The new proprietor hopes to receive the favors of the former firm's patrons, and will do all in his power to give entire satisfaction.

◆

The Programme and final announcement for the Convention next week, will be found on page 441. It came too late to appear in the front part of this number of the BEE JOURNAL.

The Hotel and the Hall, where the North American Convention is to be held next Wednesday, Thursday and Friday, seems to suit President Miller exactly. He's been stopping there with Mrs. Miller and Miss Emma Wilson, and here is what he has to say about our selection of a place for holding the big bee-convention:

Friend York:—I've been stopping at the Louisiana Hotel, taking a look with my wife and sister at the Big Show, and I don't care to say anything about it to you, but I want to say to the readers of the "Old Reliable," that I, for one, am much pleased with the selection of the place for our convention on Oct. 11th, 12th and 13th.

In the first place, there is a decided advantage in having the Hall for the convention and the Hotel where the bee-keepers stop, both in the same building. It gives us a better chance for a sociable time, and saves the trouble of going a distance from Hotel to Hall.

In the second place, both Hotel and Hall are good. The Hall may be too large, but we'll hope not. As to the Hotel, it's certainly large enough, for 600 people slept there last night, and everything about it is new and clean. Nothing extravagant or stylish, everything temporary, but when you come to solid comfort it beats the average hotel at double the price. My bedstead had legs of pine scantling, but when I got on it, and shut my eyes, I could imagine it a $100 affair, for it had a good mattress on a woven-wire springs.

One of the good things about it is, that you can have a roomy, well-ventilated room for a low price—from 50 cents to $1.00 per day, and if you want to go to the Fair, only a little way to go.

All in all, we owe a vote of thanks to our Treasurer, for the selection.

It will be a wise thing to write in advance to secure rooms. The Illinois Central railroad stops within a block. C. C. Miller.

World's Fair Grounds, Sept. 26, 1893.

We are indeed gratified to know that everything is so satisfactory. We feared to undertake the job of selecting a place for the meeting, so we are now glad to find out that the prospects are that all will be well. You'll miss a "regular camp-meeting" if you are not there, reader.

◆

World's Fair Notes.—Visiting the Fair last Saturday (Sept. 23rd), we found all the apiarian exhibits finally completed. It is indeed a grand sight, not only as a collective exhibit, but also individually. It shows what America can do in bee-culture when given the opportunity to present before the gathered nations of the world her industry devoted to the garnering of sweetness that otherwise would be "wasted on the desert air," or, for that matter, be lost for ever.

We do hope that as many of our readers as possible will be permitted to see the fine exhibits of bees, honey, wax and apiarian supplies to be found in the southeast portion of the gallery of the Agricultural Building at the Columbian Exposition.

By way of further comments at this time, we may say that—

Judge Secor was busy with his work of judging the apiarian exhibits. He expects to complete his duties about the middle of next month. Mrs. Secor is at the Fair now, and also their married son, who is a veritable "chip off the old block." We had the pleasure of meeting him, as well as Mrs. Judge Secor.

Bro. Cutting, in addition to that of Michigan, was looking after several other State exhibits whose representatives had gone home for awhile. He is an easy man to find, because always at his post of duty. His face, like some others in the apiarian department of the Fair, is becoming very familiar. We're always glad to see them all.

Bros. Stone, Hambaugh and Hershiser were respectfully looking after the exhibits of Illinois and New York. The Illinois exhibit is in four cases, one being devoted almost wholly to beeswax, both crude and in artistic designs; one case contains only extracted honey; and the other two cases are solidly filled with comb honey in one-pound sections. We will have more to say of the Illinois, as well as the other exhibits, ere long.

Dr. Mason and son, Ellis, had returned to Ohio. The jovial Doctor will, of course, be on hand for the bee-convention that assembles on Oct. 11th. If you want to see a man enjoy a bee-keepers' meeting, just come and keep your eye on Dr. Mason. He's one of the right kind—believes in soberness all the time, and all over, except in the face, and that's just full of sunshine.

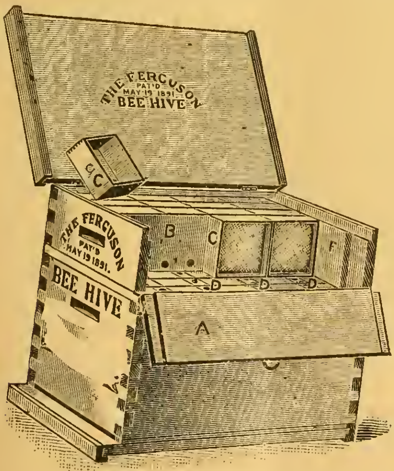
Bro. W. O. Victor, President of the South Texas Bee-Keepers' Association, was also there. He has been trying to work up a greater interest in bee-keeping in his part of the biggest State in the Union. He said that about one-third of the distance he traveled to get to the World's Fair, was in the State of Texas. Pretty large State, that.

Bro. Lester L. Price, of Nebraska, whose hive is illustrated and described on this page, has been almost constantly present during the Fair this summer. He has explained the workings of the Ferguson hive to over 3,000 visitors who were interested in bee-keeping. Bro. Price is a regular Western hustler, with the accompanying "get there" qualities.

Bros. Hambaugh and Stone have put in a mirrored ceiling over their extracted honey exhibit, which is a unique attraction. By looking directly *above* the huge pile of honey in jars and glass pails, one can see it all in an inverted position. It really looks like two exhibits instead of one, though of course the upper exhibit is "all in your eye," and not in the case. One visitor became alarmed when gazing at the apparently hanging and inverted exhibit of so much extracted honey, and asked if there wasn't danger of its falling, and causing a big smash up! It takes Bro. Hambaugh to tell about the fun he's having with that looking-glass arrangement.

* * *

The Ferguson Bee-Hive, which we illustrate on this page, shows another advance step in progressive bee-culture. Although not so extensively known to the apiarian world, yet it has been in use for eight years by bee-keepers in the West, though not until recently placed on sale, and has given unbounded satisfaction wherever it has had a fair trial.



The Ferguson Hive and Super.

The body or brood-nest of the Ferguson hive is the well-known and popular Langstroth or 8-frame dovetail hive.

The principal and radical improvements, as claimed, are in the section-case, which may be used on any other hive. It holds the usual size one-pound sections for comb honey, which have no insets or scallops at the edge, and these when in the super are close fitting to each other. Perforated separators, which come even with the outside of the sections on all sides, and are dropped loosely between the sections, cause every comb to be as straight and smooth as a board. The sections and separators are clamped sidewise by the side-opening door of the super, and endwise by a wedge.

The bees have access only to the inside of the sections, the outside and the edges thereby retaining their original whiteness. The bees are admitted to each section through a round hole in the center of its bottom. The sections rest on a honey-board with corresponding openings beneath; and in grooves in the honey-board, which the bees cannot reach, are slides, with openings that register with those in both sections and the honey-board. These slides are operated from the outside, away from the bees, and this places every section within the control of the bee-keeper. The bees are first admitted to the end sections, and as soon as a fair start is made in them, the central sections are opened to the bees, and, as a result, the entire super is finished about the same time.

To remove a single section at any time, simply close one of the slides, open the door, and the desired section may be taken out without disturbing the bees in the least.

Owing to the construction of the Ferguson sections and perforated-wood separators, but very little use of the smoker is required to cause the bees in the sections to go into the brood-chamber below. This done, all the slides can be closed, thus preventing their return to the super while any or all of the sections can be removed at will without disturbance to the colony.

Every section, filled in the most perfect shape, can be picked up as from a table, and without any scraping to free them from propolis; and placed into shipping-cases, or in the hands of the dealer, these sections possess special advantages. If the old style of sections, while being handled in the shipping-case, should slip past each other, the projecting part of the section will crowd into the insets cut in the edge, and frequently mar the face of the honey, causing leakage, and frequently spoil the entire case of honey. With the Ferguson section this cannot take place.

This section super was invented and patented by a Mr. Ferguson, but finally all rights were purchased by Mr. Lester L. Price, an enterprising apiarist of the same State, who is now introducing it to bee-keepers everywhere. He has been much gratified at the success with which he has met in sales, and particularly with the generous endorsement given to his hive and super by practical bee-men.

It was endorsed, after careful investigation, by the Salt Lake County Bee-Keepers' Association, at its meeting in Salt Lake City, Utah, on May 20, 1893. One bee-keeper in Iowa, who has used this hive two years, says that in it he was able to produce more honey, which sold for 2½ cents more per pound, than the honey he secured in other hives in previous years, and without the necessity of scraping the sections.

Another bee-keeper, who has 30 colonies of bees, bought 30 of the Ferguson supers, threw his old ones away, and is well pleased with the new. He says they are the most complete and labor-saving to the bees that he had ever used.

Mr. Price, who owns the hive, is a wide-awake, progressive young man, and is devoting his entire time and efforts to placing this hive before the apiarian world. He has had it on exhibition at the World's Fair, and thousands of bee-keepers who have examined it there, have been pleased with it, and are confident that it must prove a valuable acquisition to modern practical apiculture.

While we do not think it wise to commend every new thing that comes forward, we do believe in encouraging those inventions which are likely to prove of greatest value to bee-keepers in general. At least the most worthy should be given a fair trial before pronouncing condemnation. With these thoughts in mind, we have given the foregoing description of the Ferguson hive and section-case, and trust that it may prove to be all its friends may fondly anticipate.

◆

Have You Read the wonderful book Premium offers on page 421 ?

Wintering Bees Under Snow.—Quite often we are asked whether it is safe, or as well, to winter bees entirely under the snow, or if it is not better to keep the snow away from the hives in winter. Bro. Doolittle, in *Gleanings*, says that if the hives are covered two-thirds the way up the brood-chamber, it is a great advantage, but if the hives are covered two-thirds the way up the cap or cover, or completely over, it is a positive damage to the bees, and worse than no snow at all.

The difficulty seems to be that, as soon as the hives are covered with snow, the warmth of the ground, combined with the warmth of the bees, makes it so warm that the bees become uneasy, go to breeding, consume large quantities of honey, thus distending their bodies and using up their vitality, causing them to die of old age during February, March and April, while the young bees have not the usual strength and vitaiity of bees hatched in September and October to withstand the rigors of winter, so spring dwindling and death are the result.

◆

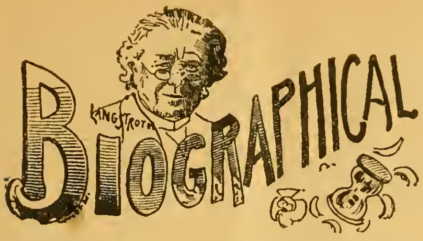
Have You Read page 421 yet ?

◆

Bees in a Sunday-School.—A few Sabbaths ago, Mr. R. M. Whitfield, the apicultural editor of the *Southern Live Stock Journal*, of Meridian, Miss., took a colony of bees in an observatory hive to Sunday-school, and gave the pupils a short lecture on the natural history of the bee, especially upon the great respect and reverence the worker-bees have for their queen-mother—a deference far superior to that shown by children of the human family. This and a few other lessons drawn from the habits of the bee seemed to interest the children much, especially since it was out of the usual line of Sunday-school lectures. So religion and bee-keeping do mix all right.

◆

Golden-Rod as a Medicine.—The medicinal qualities of the golden-rod, we take it, are not generally known. We recently read of its prolonging the life of a lady six years, who suffered from asthma. By inhaling the smoke produced from it when dried, she received instant relief. The golden-rod will hereafter be prized both for its beauty and its value as a medicine.



No. 50.—AUGUSTIN E. MANUM.

The subject of our sketch this week is another of the few "big bee-men" of the East. He is more widely known, perhaps, to the readers of *Gleanings* than to those who read this journal, though no bee-keeper of Mr. Manum's experience and success could well help being known almost throughout the whole world.

A. E. MANUM.

The following interesting biographical account of Mr. M. was written by Mr. J. H. Larrabee, for *Gleanings*, in 1889. It shows that as a comb-honey producer Mr. Manum is in the front rank of bee-keepers. Here is the sketch entire, which, though short, contains much "between the lines," that will give an abundance of food for meditation for some time:

Augustin E. Manum, was born in Waitsfield, Vt., on March 18, 1839. When the war broke out he enlisted in Company G, 14th Vermont regiment, as a nine-months' man. He served at the battle of Gettysburg, where his comrades in line on either side were killed; his own gun was shattered, and he was hit four times.

In March, 1870, a friend desired to lend him "Quinby's Mysteries of Bee-Keeping." Reading the book, his enthusiasm upon the subject was kindled, and he immediately purchased four colonies of bees, and began the study of apiculture. Having a natural aptitude for the business, and a love for the bees, he was successful from the first. His apiary so rapidly increased, that, at the end of four years, when he had 165 colonies, he sold out his harness business and began the pursuit as a specialist.

Since 1884, Mr. Manum has devoted all his energies to the production of comb honey, increasing his plant until his bees now number over 700 colonies in eight apiaries. He always winters his bees out-of-doors, packed in the "Bristol" chaff hive. For the eight years previous to 1887, his average loss in wintering for the entire time was only 3½ per cent. He uses exclusively a frame about 12¾x10 inches, outside measure, which he considers the best for practical purposes in his apiaries. His hive, the "Bristol," is almost entirely his own invention, being specially adapted to the perfect working of the system upon which his bees are managed. In 1885 his production was 44,000 pounds of comb honey, an average of 93¼ pounds per colony, all stored in twelve days from basswood.

Because of the failure of the honey sources in 1889, about 14,000 pounds of sugar syrup was fed the bees to prepare them for winter. He still has much faith in the pursuit, although the past three successive poor honey years have told heavily upon his enthusiasm.

Mr. M. is of medium height, with dark complexion, hair and eyes. A kind friend, an upright gentleman, and a thorough business man, he has attained an enviable position among the bee-keepers of Vermont, where he is so universally known. His extensive operations, his uniform success, and his practical writings, have also given him a national reputation.

General Questions.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Feeding Bees for Winter.

Is glucose a good thing to feed bees for them to winter on? I have 10 or 12 colonies that will have to be fed, as the the season was poor here, and I had one swarm on Aug. 24th. I want to carry them through the winter by feeding, and at as small expense as possible.

Dyersburg, Tenn. N. B. GRAVES.

ANSWER.—*Decidedly no.* Don't fool with anything but the best granulated sugar. Make the syrup as given in the books, and if you have extracted honey that you know was not taken from foul-broody hives, take Doolittle's plan, and to every two pounds of syrup add a pound of honey.

Rocky Mountain Bee-Plant.

I send a sample of a plant that grows wild here. It comes up also in the wheat-stubble after the wheat is cut. From what I can make out from the description in the "A B C of Bee-Culture," it is the spider-plant. I find the large drop of honey which Mr. Root describes. It stays in the flower until after 9 o'clock a.m. I find the bees feeding on it considerable.

Guthrie, O. T. F. N. GARDINER.

ANSWER.—It is doubtless spider-plant or Rocky Mountain bee-plant, as both grow in that region. Both are showy, and excellent honey-plants.

Swarming, Wild Bees, Etc.

1. I had one of my first swarms to cast a swarm yesterday. It was a small one, and I did not see what hive it came out of, but I examined them to-night and found a hive with 14 queen-cells in it; one of the cells has a queen in it, and one nice one where the queen has come out of it, and the rest of the queen-cells are torn to pieces. Part of the swarm clustered on that hive, and part on two other hives close by. The bees all went into the hives that they clustered on, and in about two hours after that they were all lying on the ground dead in front of the hives. Why did they go into the other hives? Why did the other bees not accept them?

2. There is a very small bee around here, and it works on the sunflowers. I have never seen it on anything else, and it is not half as large as a honey-bee. It gathers pollen, and its movements are very quick, and its legs are very hairy. Can you tell me what kind of a bee it is?

3. I am a beginner. I commenced last spring with one colony, and now I have eight, all doing well and storing lots of honey. Some of them are working in the third set of sections. I have a fine honey-extractor and a solar wax-extractor that does fine work, all of which I made myself.

G. R. MCCARTNEY.

Rockford, Ills., Aug. 21, 1893.

ANSWERS.—1. Your conundrum is a hard one. It isn't an easy thing to tell why bees do many of the things that they do. There is, however, nothing so very unusual in what your bees did. For some reason the bees did not go off, possibly because something hindered the queen from going with them, and then in a demoralized way they settled on three different hives, and the two strange colonies not desiring accessions at that time ruthlessly slaughtered the intruders.

2. We are not sufficiently posted on wild bees to give you the name of the one that worked on sunflowers.

3. If you started with one colony in the spring, and have brought that up to eight, with part of them working on the third set of sections, and you have done remarkably well. Make sure that some of them are not too weak in bees or stores to winter through. The chief question is, not how many you have now, but how many colonies you will have alive next spring.

One of the Golden-Rods.

I send a flower that blooms here during this month. Please tell what it is.

C. E. PHENICIE.

Tacoma, Wash., Sept. 15, 1893.

Prof. Cook replies to the foregoing as follows:

This plant is one of the numerous species of golden-rods. The Pacific species are distinct from ours, and the variations are so pronounced that it is necessary to have an entire plant to identify it. It is without doubt a fine honey-plant, and surely we have very few wild flowers that are more graceful and beautiful than these gems of our marshes and uplands. A. J. Cook.

Hives with Loose or Tight Bottoms.

I read much of wintering bees without hive bottom-boards. Now I am so unlucky as to have mine nailed fast to the hives. What would you advise me to do, in this case? Last year I owned a single colony, and wintered it O. K., with fastened bottom-board, but lost a good many bees. This year I have 3 more from the same old colony, and have taken about 60 pounds of comb honey from the first swarm.

Rev. H. O. Jorris.

Reeseville, Wis.

Answer.—Perhaps you can do no better than to use your hives just as they are. When you have new ones made, you can try the loose bottoms. If, however, you are anxious to try the loose bottoms this winter, you can temporarily take out the frames, take off the bottom, and make any change you like. Perhaps the chief reason for preferring loose bottoms is because you can thus have a space of about two inches under the bottom-bars in winter, and you must provide for this.

STRAY STINGS *From— The Stinger.*

Away "out West," where grow big mountains,
And "rocky" hills with cooling fountains,
There wanders a man who pictures "scenings,"
In a beautiful paper that is known as "*Gleanings*."
The fellow's quite "queer;" though not a gambler.
He's neither a bachelor—just simply a "Rambler."

A bicycle craze is being worked up among bee-keepers; young Root, of *Gleanings*, the Stinger believes, being the father of the fad. A leading San Francisco physician, and a member of the Board of Health of that city, not long ago published a very learned and interesting article on the "Bicyclist's Hump," showing that it is a thing to be avoided. I do not want to see a race of hump-back bee-keepers in this land, so I would recommend that if a bee-keeper has to chase his swarms on a wheel, that he keep his handle-bars well up, and thereby not double himself up like a jack-knife while propelling his machine.

Doolittle's perennial little advertising man is always "on the square," as I suppose Doolittle himself is. But the poor little fellow has been compelled to support himself so long in a perpendicular position that he must have become tired of the vertical attitude, and, as a relief to his vertebra, he has assumed a horizontal position. (See advertising page 288 of this Journal.)

Perhaps, in the course of human events, this self-same little advertising man of Doolittle's will be next standing upon his head. But, then, to keep him "on the square," he must manage to get that square block under his head, instead of on top of his feet, where it will surely be, if not changed.

The distressed look that o'er spreads this little fellow that I had just been referring to, impels me to say a few more words in his behalf. From his pleading attitude I am led to believe that he is in dire distress, and would like a dose of medicine. Perhaps it might be well for some medical man to take him in hand and treat him professionally. I suggest that Dr. Miller take him to his hospital and report results as his patient improves, as he must do under the Doctor's skill.

I cannot leave this quizzical chap on the block without inquiring why he was allowed to pull those trousers he is wearing before they were longer? Possibly they were pulled too soon. In this respect they may be said to be like some of those queens of the "pulled" variety.

Editor Root of *Gleanings* says in the September issue of his paper, that the title of these "Stings" "might lead one to expect something caustic or disagreeable" in them. "On the contrary," he says, "it is very pleasant." Thank you, Bro. Root; but let the Stinger warn you to keep away from his business end, or you may have reason to find out that there is "something caustic or disagreeable" in what may follow.

Doolittle, Root and Miller have an argument under way in *Gleanings* concerning the respective merits and demerits of wooden and wire paddles for "shooting" bees on the wing. It looks as if one side had been used to wielding baseball bats and the other tennis bats, the latter being much like the wire "paddles" used in killing obnoxious bees. "Paddle" your own canoes, boys, and may the best man win.

North American Convention.—We have received the following announcement from Secretary Benton:

COLUMBIAN MEETING OF THE BEE-KEEPERS OF NORTH AMERICA.

The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills.

PLACE OF MEETING.

A hall for the use of the Convention has been secured in the "Louisiana Hotel," at the corner of 71st street and Avenue B, only a few minutes walk from the south entrance to the World's Columbian Exposition. This hall is large, well-lighted, and in a quiet place.

HOTEL ACCOMMODATIONS.

The "Louisiana Hotel" itself will furnish comfortable accommodations to members at very moderate prices. For a small room two persons pay daily 75 cents each. Larger rooms occupied by two, at $1.00 per person. Four persons occupying a room having two beds will pay 50 cents each. Meals can be obtained in the hotel at reasonable rates, or at numerous restaurants in the vicinity. It is best to engage rooms by letter beforehand.

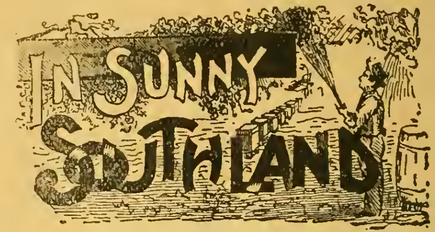
The proprietors of the "Louisiana Hotel" give us the use of the hall free, expecting that all the members, so far as possible, will take rooms with them. and as the prices are moderate, and rooms are neat and convenient, it is but just for all who can well arrange to stop there to do so. For this purpose, address, Manager "Louisiana Hotel," corner 71st Street and Avenue B, Chicago, Ills., stating what priced room is wanted.

RAILWAY TICKETS AND BAGGAGE.

Most of the railways ticket to the Exposition Depot, near which the "Louisiana Hotel" is located, and baggage should be checked to that station, thus avoiding extra charges, as it is about seven miles from the city stations to the World's Fair Grounds. Information as to rates of travel, the time tickets are good, etc., can be obtained of all local ticket agents. From many points—especially from cities having numerous competing lines—excursions will be starting which will permit those who can take advantage of them to go and return at the usual rate for one fare, if not less than that.

FRANK BENTON,
Sec. North American B.-K.'s Association.
U. S. Dept. of Agricuture,
Washington, D. C.

Great Premiums on page 421!



CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Safely Landed in Beeville.

I am now (Sept. 23rd) safely landed all O. K. at Beeville, Tex., with all my wares, etc., except some 20 colonies of bees that were smashed up by letting a railroad engine run away, or right into or against one of my cars, bursting up the car and damaging my bees somewhat, which I trust the railroad company will not object to paying for.

I am well pleased so far, as this is a fine looking country, but rather dry, though water is plentiful, and the grass is still green, so we do not have to feed our cows any, which is a great saving.

This undoubtedly is a fine bee-country, as there are thousands of colonies here, and where there is timber the woods are full of bees, I am told, but there are places here that are ten miles from timber or any settlement, and I shall improve these opportunities by mating my fine queens. JENNIE ATCHLEY.

Cure for Bee-Paralysis Wanted.

MRS. ATCHLEY:—During the late, hot summer, my bees all recovered from the bee-paralysis except one colony. Within the last ten days, however, I notice that the disease has again spread to half of my colonies, and I am very much afraid that I am going to have great trouble. If you have any practical experience with the disease, I shall be grateful to know if there is any cure. I have read *Gleanings* and the AMERICAN BEE JOURNAL for two years, and have seen nothing yet that will remedy the evil.

T. S. FORD.
Columbia, Miss., Sept. 9, 1893.

Friend Ford, after experimenting pretty thoroughly with every known remedy, I have come to the conclusion that anything administered to the bees is a failure. As I am fully satisfied that it is caused by some atmospheric or other conditions of the weather, causing the food that the bees take to give them a fever. You may confine a bee, or bees, just as soon as she has symptoms of the disease, and she will shed all the hair from her body, thus proving that it is a fever of some kind or character, caused by the food taken, and therefore I do not think it is a catching disease.

I have always been pretty successful in curing bee-diarrhea, by giving new, clean hives and new food. I firmly believe that to take away their combs, honey, brood and all, and give them clean, fresh quarters, food, etc., will cure quicker than any remedy yet tried. I am going to name this disease "the bee-fever" until something more appropriate comes out, as it acts more after the nature of a fever than any other disease, to *me*. Now, as you live in the South where you can take your bees out of their sick rooms and give clean hives, food, etc., at any time of the year, I would suggest that you try my remedy and report, as you have the proper material to work on, and as you say more than half your colonies are afflicted. Should you try my plans, I will take it as a special favor if you will let me know the results. JENNIE ATCHLEY.

Laying-Workers or an Old Queen.

MRS. ATCHLEY:—In looking over my colonies two weeks ago, I found one with no worker brood or eggs, but a very few scattering cells of drone-brood. To-day I examined them again, and found them in the same condition. Will you please tell me what I am to infer from the condition of the colony? Are they queenless, and a laying worker conducting the affairs of the colony? or what is wrong with them?

They seem to be working well, and storing plenty of honey in the brood-nest for the winter. Could I safely introduce a queen, or not? JOHN L. MURDOCK.
Clark's Corners, Ct., Sept. 11, 1893.

Friend Murdock, your colony has either laying workers, or an old queen that is nearly played out; or if she is not old, she is no good, and if they are not pretty strong in bees, you had better introduce a young laying queen at once. But if they are strong in bees, you can let them run over until spring, then give a queen. However, I am rather inclined to believe they are weaker than you think, and it may be better to give them a queen at once, or a frame or two of hatching brood from other hives, that they may have some young bees to go into winter with. But before you try to introduce a queen, you must be sure there is no queen there. Place in a frame of eggs and larvæ, and if they start cells in three or four days, you may know they are queenless; if not, they have some kind of a queen. JENNIE ATCHLEY.

QUERIES & REPLIES

What Subjects Should Bee-Experiment Stations Consider?

Query 891.—What subjects, to your mind, are the most important to bee-keeping, and should be first taken up by an experiment station?—Mich.

Give it up.—EMERSON T. ABBOTT.

Swarming and wintering.—J. H. LARRABEE.

That's the question I am asking.—R. L. TAYLOR.

The nameless bee-disease and wintering.—A. J. COOK.

Those that bear on practical bee-keeping.—G. M. DOOLITTLE.

The kind of bees. The hives and their manipulation.—DADANT & SON.

The best management for the largest yield of honey.—MRS. J. N. HEATER.

Find some plan or way to have the queens fertilized with selected drones.—E. FRANCE.

Please correspond with R. L. Taylor, of Lapeer, Mich. He is "right in it."—H. D. CUTTING.

Flowery subjects; and they should not be "taken up," but planted out.—MRS. L. HARRISON.

Lets have the troublesome wintering problem—that like Banquo's ghost, will not down!—solved for a certainty the coming winter!—WILL M. BARNUM.

1. The unhealthfulness of glucose, the adulterant and supplanter of honey. 2. The proper thickness of comb foundation in surplus honey.—P. H. Elwood.

1. Improvements in bee-fixtures. 2. Planting for crops and honey. 3. Best management to secure the crop. 4. Best method of crating and shipping comb honey.—C. H. Dibbern.

Control of swarming; methods of wintering with the relations of food, temperature, etc.; and improvement in bees and honey-plants, are some of the things that promise greatest results.—James A. Green.

1. Testing different races and strains of bees. 2. Methods of wintering. 3. Spring and summer management for comb and for extracted honey. 4. Queen-rearing. 5. Value of different honey-plants. 6. Improvement of bees.—M. Mahin.

1. The bees. 2. The apiarist. 3. The flora. 4. The hive. As these are the four essentials that it takes to make a bee-keeper, I think they should first be considered. Then take up diseases of bees, and then the general work pertaining to the business.—Mrs. Jennie Atchley.

1. The forage question, embracing the study of those subtile elements or influences operating to promote or retard the honey secretion, and what control, if any, can be had over them. 2. Improvement of the strain of bees. 3. Manipulation and management of appliances, etc.—J. P. H. Brown.

Oh, my! there are a lot of them. The number of frames in a hive for comb and for extracted honey, is one that needs extensive experimentation, and each bee-keeper will have one or more specially interesting to himself. If all are suggested, stations can select and attack according to their judgment.—C. C. Miller.

In the fall, that of wintering safely. In the spring, that of getting and keeping colonies in good condition. In the summer, queen-rearing, and endeavoring to work out the best plans for the same, and to have such queens purely mated. An "experiment station" should be such in fact, and yet not be run to fanciful extremes on doubtful theories.—J. E. Pond.

If what I have seen so far, coming from that source, is a fair sample of what we may expect in the future from the same source, no good will come of it except the salary attached. No practical bee-keeper will ever hold a position in such a capacity. I *used to* run my apiary for experimentation; it is now carried on for money. It pays well now, but it didn't then. The future hope of the bee-business is in the hands of the practical honey-producers, and we will keep it there.—G. W. Demaree.

Prove that chilled brood will not develop foul brood. Prove what "make" and thickness of foundation cannot be detected when eating comb honey. Prove whether sugar syrup can be profitably fed to bees to produce comb sugar-honey at current prices. Prove whether as fine section honey can be produced without separators and only a half-inch starter, as with separators and full sheets of foundation. Find what width of section is most profitable.—Eugene Secor.

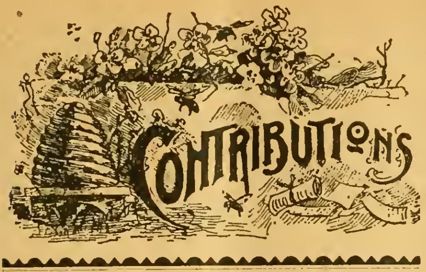
Some of them would be these: Best race of bees. Best way to increase our pasturage by planting and saving what we already have. Best way of wintering. Best and most economical way of moving bees to better pasturage, hive, wagon and team to be considered. Best honey-packages for shipping both comb and extracted honey. Spring feeding to promote brood-rearing. Best food for wintering—shall it be honey, sugar, or a mixture? Treatment of foul brood. The above will do for a start.—S. I. Freeborn.

Convention Notices.

PENNSYLVANIA.—The next meeting of the Susquehanna County Bee-Keepers' Association will be held at the Jay House, in New Milford, Pa., on Thursday, Oct. 12, 1893, at 10 o'clock. a.m. All are cordially invited.
Harford, Pa, H. M. Seeley. Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land, Frank Benton. Sec.
Washington, D. C.

MISSOURI.—The 8th semi-annual convention of the Missouri State Bee-Keepers' Association will be held at Pertle Springs (near Warrensburg) Mo., on Oct. 18, 19 and 20. 1893. It is desirable that as many as can possibly make arrangements will be present, in order that the prosperity of the Association shall not suffer in these poor seasons, for want of personal support. The Executive Committee will prepare a program that will give all an opportunity of expressing themselves on the most important subjects now occupying the attention of the bee-keepers of the country. Arrangements have been made with the M. P. Ry. Co., for 1⅓ fare, certificate plan. Accomodations at the Pertle Springs Hotel will be reasonable. Bee-keepers from any State and every State will be cordially welcomed. P. Baldwin, Sec.
Independence, Mo.



Api-Phrenology—Some Ideas on a New Bee-Subject.

Written for the American Bee Journal
BY DR. J. D. GEHRING.

(Continued from page 403.)

"The most conspicuous bump the drone-bee has, is what phrenologists have designated 'Alimentivess;' or 'Appetite,' for short. This organ is located just in front of the ears—on both sides; which explains why the drone has such a wide head. The immense development of this organ gives him the appearance of having the mumps all the time, and it explains why he has such a tremendous appetite. But it doesn't explain why he will never work a lick to get something to eat. That is explained by negative demonstration, thus:

"You see me slide my thumb and forefinger back, a little behind and above the ears? Well, that's the place where '*Force*' (or 'Combativeness,' as it was formerly named) is located; but, you see, the drone has a depression instead of a bump there. That means that he hasn't got any Force. It proves that he is a natural 'ninny;'—a good for nothing, lazy, loafing, profligate scalawag. Then, just above the ears is the place for 'Destructiveness,' and you see the drone has no sign of it; which still further accounts for his tameness and uselessness. Another serious deficiency in his phrenological make-up is his total lack of 'Acquisitiveness;' which is the reason why he never lays up anything for future use. And he seems to be so utterly deficient in 'Benevolence,' that he never manifests any concern for others. He will eat the last drop of honey away from his own children, and let them starve, without a pang of remorse; he has no 'Conscience,' you see.

"Another trait of character that distinguishes the drone from other bees, is his gallantry. All of our learned bee-men, I believe, are agreed that this disposition of the drone to attend 'social parties' during the warm and busy season, is nothing more than instinct. I don't agree with them in that, for I believe there is a phrenological reason for his amorous propensities; and that it is just the same, in kind, as in other creatures of the same gender.

"Bee-men have given considerable attention to the drone-bee for several years past. They have long since concluded that he is a nuisance, and at best a necessary evil; but how to make the honey-business a success without him, has not yet been found out. Many are studying at the problem, and I think all the successful honey-producers make more or less successful efforts to restrict drone-increase. But, I tell you, this slaughtering business, made necessary every year, is hard on the reputed amiability and gentleness of bee-men as a class."

"That's all very interesting," said Mr. Luthy, "but you haven't succeeded very well, as yet, in proving that bees have sense—phrenological sense. All you have so far proved is that drones have no sense. But I want to ask you one particular question. You have once or twice mentioned the 'ear' of the drone. Now, how can you prove that drones have ears? You are rather young in the business to face the vast army of bee-keepers who have conclusively demonstrated that bees can't hear—no more than they can see. Where is the ear of the drone 'located?' to use a favorite term of yours."

"Mr. Luthy," I answered, "did you ever examine a bee with a magnifying glass?"

"No," he said, "I never have."

"Well," I replied, that is the reason you have never discovered that bees have eyes; and for the same reason I can't prove to you that they have ears—they are not mule's ears, Mr. Luthy."

"You intimate that the question whether bees can hear or not has been conclusively settled by a vast majority of bee-keepers. My impression is that, so far, nothing has been proved against my theory by anything I have seen in print.

"I challenge the whole fraternity to answer me this question:

"Does the bee—male and female—*need* the organs of sight, and hearing, and scent? That little word 'need' settles the whole business for me; for, in all the Universe the Creator has left no *need* unsupplied.

"You know I have only three colonies of bees, as yet. Well, when I have nothing else to do I sit on my camp-stool and watch those bees, just about as a young mother watches her first baby; and while I watch, I think.

"On two different occasions, as I was thus watching and thinking, it suddenly began to thunder, although there was no rain in sight. In a few minutes after the first rumbling was heard, I noticed that the bees were coming in with greater haste, and in greatly increased numbers. On those two occasions there was no rain at all. Now, I want you, if you can, to account for this manifestation of human-like intelligence, if bees can't hear? If they didn't *hear* the thunder, what made them rush home so furiously?

"I was going to give you the phrenology of the worker-bee, for that is really the most important and most interesting part of Api-Phrenology; but I see you are getting tired of my talk. Besides, the wind is rushing and roaring in the trees as though there was a storm near at hand. I must hurry and get home before it rains."

I awoke. The roaring and rushing I had heard in my sleep was not the wind, but my new swarm of bees. They were all out, and were just beginning to settle in a cluster on a limb of the tree above my head.

"Here is another argument for Mr. Luthy," said I to myself: "If bees can't see, and for that reason run against a person in their way, how is it that not one of the 30,000 or more of that swarm flew against me just now? I was right square in their way when they rushed out."

When I went to see why they had come out of their beautifully furnished new home, I found nearly all the comb foundation sheets melted to the bottom of the hive.

Lawrence, Kans.

Some Bee-Keeping Experiences of Years Ago.

Written for the American Bee Journal

BY DR. E. GALLUP.

When I first moved into Iowa bees were scarce, and I could not get any for "seed" to start with, but an aunt had a few colonies in box-hives, and gave me one with about a pint of bees and a superannuated queen. I moved it home in February, set it in the cellar, bottom up, on a bench, and used to set a pan of coals under every night, and stimulated a little with sugar syrup. Well, I built up quite a respectable colony by the first of July. When I received my first Italian queen from Wisconsin, I killed the old "black lady," and introduced the Italian.

Some time in April I found a colony in a tree, and as soon as I reared some queens I transferred them, killed the old black, and introduced an Italian. Three days afterward I found my Italian dead in front of the hive.

It was then six days after killing the black queen, on examining the hive I found the combs well filled with eggs, larvæ and brood in all stages. I found no queen-cells, but found a drone-laying queen. The body, head, legs and wings were those of a perfect drone, but the abdomen was a perfect queen's abdomen, but extra-large. The bees were extra-large specimens from this drone-queen. I always regretted that I did not keep her to see what they would turn out, but I wanted all Italians, and killed her without thinking what I was about.

I gave the above fact at the National Convention at Cincinnati, and Mr. Langstroth stated that he once had a specimen of the same kind.

Now the above is a nut for some of the BEE JOURNAL'S wise contributors to crack.

From those 2 colonies, after the first of July, I made 7 good, strong colonies, and that was the manner in which I started in Iowa. In box-hive times, I once made 10 good colonies from one, in one season in Wisconsin; at all events, they were not movable-comb hives. With the movable-comb hives and a good, strong colony to begin with, I once made 15 colonies in one season—all good, full, strong colonies. But one must know just how, and then it is very easy fun.

Santa Ana, Calif., Sept. 8, 1893.

Foul Brood—A Reply to a Comment on the Subject.

Written for the American Bee Journal

BY WM. M'EVOY.

On page 334, I see that Mrs. Jennie Atchley seems inclined to dispute everything I say or do in the whole foul-brood business. If Mrs. Atchley had charge of the foul-broody apiaries for the Province of Ontario, and in the last few years had hundreds of very foul-broody apiaries to get cured of that disease, by all sorts of bee-keepers that she had to train, many of them very careless, some down-right cranks, and a few so dull and stupid that they would botch everything they undertook if they were not sharply looked after—what a terrible failure she would make of the whole business; and if she was in my place, with a whole Province to look after and manage, when she made one of the greatest failures ever known of her own apiary, when it had foul brood, and was able to save only 4 out of 100 colonies! If I had had charge of Mrs. Atchley's apiary, I positively know that I could have cured it of foul brood, and made considerable increase, and in the fall of that year would have had not less than 120 colonies in grand condition, completely cured of foul brood.

But Mrs. Atchley doubts if I am treating foul brood at all. She might just as well doubt Prof. J. J. McKenzie, of Toronto, who examined the brood, and he said that it was foul brood. I do believe that both Prof. McKenzie and myself are just as good judges of foul brood as Mrs. Atchley is.

Mrs. Atchley says she had some hives of bees washed away in a flood, and that brood rotted in them, and when the combs dried up that she gave them to bees to clean up, and all was well. That case of hers is not to the point at all, as that is different entirely from having *brood reared in corrupt cells* in brood-chambers full of drowned brood that had gone into great masses of corruption, followed by extreme heat in June, like Mr. Charles Urlocker, of Thorold, Ont., had in June, 1890. In less than six weeks after the flood had drowned all the brood in Mr. Urlocker's apiary, I examined his apiary and found it in a horrible state with foul brood. Mr. Urlocker first wrote to Mr. D. A. Jones, of Beeton, and he reported that it was foul brood. Then he wrote to Mr. Allen Pringle to have me sent to his aid at once, which he did.

In the Foul Brood Bulletin, Mr. D. A. Jones, of Beeton, Ont., gives one of the most convincing proofs ever given, and one that no man between earth and sky can get over or dispute. He speaks of an apiary where the brood in a lot of colonies was drowned, and how the owner took the brood out of some of the colonies at the time and they became all right; but in the others, where the drowned brood was not removed, they had foul brood. Also, see all the proofs that I gave of the only and true cause of foul brood in the AMERICAN BEE JOURNAL of May 11, 1893.

Mrs. Atchley's saying that drowned brood won't cause foul brood is a dangerous advice to give, and will cause people to be very careless, and when foul brood starts in their apiaries it will almost ruin them before the owners wake up to the true state of things. Advice like that is like placing a board from bank to bank, high above a river, and then saying it is a safe bridge for all to travel over on, because many have crossed the river on it. Then along comes a very heavy man, and he is tempted to try it because he saw Mrs. Atchley and many others cross it; but when he gets out to the middle of the board it breaks, and down goes the man to the river of death. Then the pieces of boards are examined by several men, and one Mrs. Atchley, with faces long enough to move a meeting house, to see if it was not this "germ" and that, that caused the board to break, when it was only a case of too much man for the board that caused it to break. So it is with a hive of bees when they have too much corruption to clean out. Is it any wonder that they would sicken of so much filth, and break down under such a horrid load, and end in foul brood?

I have not one cell of dead brood of any kind in my whole apiary; I manage my apiary so as to have none, and if I had I would make wax of the combs at once.

I see that Mrs. Atchley won't take my word on my methods of curing foul brood right in the same old hives without scalding. It tickled me so when I read that, that I had to laugh right out. Why, if that dear lady had asked me how long she was to boil the hives, I would have said that would all depend on how long she intended to boil the bees. Surely, no person would do such a naughty thing as to put bees from a foul-broody colony into a boiled hive without first scalding the dirty little feet of the bees that traveled over the foul combs, so that they could not make the boiled hive as bad as ever. And to make matters a thousand times worse, the bees would be full of the deadly stores when they were put off the foul combs into the boiled hives. Why not attend to the main thing, and boil the bees? Why boil the hives and not the bees? Why should any person strain at a bat and then swallow a sawmill? Boiling hives that foul brood had been in, is a thing of the past in Ontario, and I am glad to say that I stopped all such folly as that, and saved the bee-keepers from burning up a lot of wood in heating water, and wasting their time in boiling hives.

Mr. C. W. Post, of Murray, Ont., has more colonies of bees than any other man in Canada, and is one of the best bee-keepers in the world. He is also a good judge of foul brood. I got Mr. Post to come with me to see his neighbor, Mr. Ezra Bonter, who had an apiary of 40 colonies that had foul brood so horridly bad when I first examined it that the stench from it was almost unbearable. I got every colony cured in the same old hives without any scalding. Mr. Post and I examined every comb in every colony, and found them completely cured, and all the colonies in grand condition.

When I get a little time I will give the cause of a lot of dead brood that is found in colonies in June, and how to manage all colonies so as to never have any dead brood in any colony at any time. I will also send some letters that I got, to the American Bee Journal, and through it answer the questions in them. None of the writers of these letters need be afraid that I will ever "give away" their names.

Woodburn, Ont., Canada.

Why Do Some Suffer from Bee-Stings and Others Not?

Written for the American Bee Journal

BY H. F. COLEMAN.

The above question, as asked by Emm Dee in the American Bee Journal of June 1, 1893, has not yet, in my opinion, been fully answered. The solution of this question, however, is of but little consequence to bee-keepers, but we all desire to know the truth, even if the truth is of little consequence to us. So we will go to the solution.

The degree of suffering as the result of a bee-sting is governed by the state of the nervous system of the person receiving the sting. If the nerves are at a high tension, the suffering is acute, the pain severe and continued. If the nerves are low, the suffering is less acute, the pain is not so severe, and not of as long duration.

To prove this, let a bee sting the afflicted part of a person suffering with paralysis. If the affliction is severe, the pain from the sting will not be perceived. I have had some experience along this line, that I will give.

Some years ago I overworked myself mentally in my profession, and brought on nervous prostration. By the use of nervines, and the closest attention to hygienic rules, I have recovered so as to be able to labor again, but have at times a very low state of nerves. At other times, by the use of nux vomica, or other nervines, my nerves are normal, and I now want no better guide to the state of my nerves than the pain from bee-stings. If the pain is scarcely perceptible, which it is at times, I know that I need a few doses of some nervine, and after taking them, if I receive a sting, I can see a marked difference—the pain is more severe.

Any one can verify the truth of this position, by running his nerves down by the use of tobacco, and letting bees sting him while his nerves are so run down; and then toning them up by using nux vomica, and letting bees sting him while they are thus toned up.

Sneedville, Tenn.

[Although Mr. Coleman tells how to go about the experiment to prove his statement, we wouldn't advise any one to thus begin the use of tobacco. It is better never to know the truth than to have to resort to such means to find it out. Mr. C. simply has told how the experiment could be made, but of course he wouldn't wish a non-user of the weed to thus experiment. Don't do it, lest it might cause you to become a victim to what is, to us, the useless, filthy and disgusting habits of the tobacco slave.—Ed.]

Bees Rearing Young, and Not Sealing Up the Cells.

Written for the American Bee Journal

BY R. C. FOWKE.

I notice on page 268, that Mr. Otto Bauker asks what caused his bees to rear young, and not cap all they reared. My belief is that his bees became queenless and remained so for some time, or had an inferior queen which caused them not to have any, or not a sufficient amount of newly-hatched bees to do the capping, which, in my opinion, generally do this part of the work.

As to the uncapped brood dying, I would say that it was caused by being exposed, as there was not enough bees in the hive to protect them from any change of the weather, or from moths, etc. I will give an example of a similar thing, as I had some experience in the same line with not less than six colonies this year, some with inferior queens, and by colonies becoming queenless, etc.

About May 15th, I had 36 hives out in the hot sun, and the comb of the hives became so hot that it began to get so tender that it would get loose and fall out of the frames; and the bees had such a swarming fever that I thought I would have them moved to a cooler place. I therefore got help, and moved the hives the same Friday night. Now came the trouble: What was to be done with the bees that would return to the old apiary? I took two empty hives early Saturday morning, and put in one frame of young brood, and in the balance of the frames I put foundation, so they could go to work, as I could not give the exact bee to the hive it came from, as I could not tell them part, and if I had put them in some of the weakest colonies, they might have been destroyed or caused the colony to which they were given, to take the swarming fever, and I did not want to be bothered with any more swarms for the season. Therefore, the only thing to be done with them was to make new colonies out of them.

Now came another point—I did not have any queens to put in them, and did not have any time to send off for them, so the only thing was to see that they reared good ones themselves. This might have done for young bees, but everybody that handles bees knows that the bees that generally return to their old homes are the oldest of the colony.

On Saturday morning they began to return, and about 9 o'clock they began to settle on the only two trees that were near, so I put the hives where they were alighting. As soon as the hives were set straight, they left the trees and went pell-mell into them, as if they were going to their own homes, and not a bee disturbed another. At sunset, both hives had more bees than they could hold—we could not see the hive for the bees; and this was not all, they kept coming all day Sunday. On Monday morning I fixed two more hives, and divided them. I know there was not less than a bushel in the hives and on the sides.

In a few days they were on the right road to rear their queens, and soon had them ready to work. Three of the four I left, and from the other one I thought I would rear some Italian queens, as I just received a very fine one. So I caught the young queen before she laid an egg, and destroyed her, and put the colony to work. As soon as they were ready for use, I took them all away except one, which was destroyed by the bees, so that left me without any for the colony, as I had used all the balance, and only had some just started a very few days. So I waited until they were ready, and gave one to them, and it was destroyed as in the former case. I kept on giving to it until I had given it five, and they were all dealt with alike. I then became disheartened, and gave them a laying queen.

They were queenless for about 65 days, and the bees were all old (more or less) at the time they were moved, and it took them between 15 or 20 days before any young bees were in the hive. It was about 50 days from the time that I made it before any of the young bees could help their brothers or sisters, and there was hardly any brood reared, and very few old bees.

The only way I see to make them do their duty, is to see that they have bees of all ages, and enough to take care of the brood. It is a fact that young bees never venture to any of the hives under a certain number of days, and only in the middle of the day; therefore, it is supposed that they do most of the housekeeping, and if they are lacking, and the old are scarce, it is a certain fact that there will be something wrong.

Let some one else try a colony the same way, and if uncapped brood won't result, I am greatly mistaken.

Baldoc, S. C., Sept. 7, 1893.

Italian Bees—An Experiment with Drones, Etc.

Written for "The Illustrated Bee Journal"

BY ADAM GRIMM.

On pages 169 and 170, is an article about queen-bees, from the able contributor, Dr. Gallup, which I have read with much interest, the more so as I rear and send off a larger number of queens every season. I fully agree with him, that queens cannot be reared by thousands, like cabbage plants, and all be good ones; that queens are found, three of which will not lay as many eggs as one good one; that a great many bee-keepers are, and will be, disappointed with the Italian bees after trying them, as many will get queens that are very little prolific, although they appear to be all right in other respects. And not only will the queens they receive be very little prolific, but the daughters also, although beautifully marked queens, will be less prolific than queens even of the black race. Why is this so, and how is this state of things to be changed?

In the AMERICAN BEE JOURNAL, Vol. 3, No. 5, page 95, second column, in a correspondence from Bellinzona, Italy, I said:

"It struck me both last year and during the past summer, that precisely those of my colonies which had particularly bright yellow workers (and I should have added, queens) were on an average less productive in swarms and honey, than those with workers darker colored, and swarms from this yellow colony moreover issued later than those with workers darker colored, and hybrids." And I incline to coincide with Mr. Dathe, who, in the pamphlet already referred to, remarks that "very yellow queens are more delicate than those of a browner hue.

Most breeders of Italian bees know that imported queens, as well as their workers, are not as bright yellow as queens reared in this country by a number of breeders, or in Germany by Dzierzon, Kline and Dathe, and I expect most all of them have observed that those extra bright queens are more "*faible* and *tendre* and less *feconde*," and Von Berlepsch says the same on page 313, line 9, from Bellow in his second edition of his great work, "The Bee and Her Culture," in movable combs in locations without fall pasturage. He further says on that same page, counting off and answering the different points in superiority claimed for the Italian bee, under the heading, "The Italian Bee is more Prolific, Dzierzon, Bztg., 1853, page 189; Count Stosh, Bztg., 1857, page 253:"

"The noble Dzierzon race is plainly *less prolific* and an extra noble queen, which, with the graceful consciousness of an old French Marquis, walks over the combs, *never lays* as many eggs as a Mona-Caprera—names of two of the four queen-breeders and shippers in Italy—a hybrid or common one." If such a careful observer as Von Berlepsh makes such a statement in his book, I think we may believe him without much hesitation.

Dzierzon has, as we find further stated on page 311, of the same book, succeeded in breeding a race a great deal yellower, more beautiful and more constant in color than we find it in Italy. Queens reared from his queens will produce all well marked workers, *even if impregnated by a black drone*, instead of producing workers half black and half Italians. Now what does this prove? To me it is plain that by a long run of breeding-in-and-in, and carefully selecting only the highest colored queens, a breeder can get a more beautiful race of Italian bees; but it further proves to me, that such a race is not as prolific and not as hardy as the Italian race is, and was originally found in Italy. It is a consequence of breeding in-and-in, of selecting breeder queens with reference to color only, without considering other qualities.

After breeding a large number of queens from three obtained of Mr. Langstroth, I succeeded in rearing workers that appeared brighter yellow than any I reared from the original queens, but at the same time I observed that my queens, at least an average of them, were not as prolific as the original queens. This was the case with extra bright ones more so than with darker ones, which occasionally appeared. Being fully satisfied that my stock was growing weaker, I concluded to see whether I could not, by the introduction of a large number of imported queens, bring them up to the old status of prolificness, and consequently introduced 43 queens of that kind into as many colonies of my home apiary. Breeding largely from them I succeeded in rearing colonies fully as vigorous and prolific as colonies with imported queens.

But while I succeeded in rearing this prolific and vigorous stock, I have observed that my bees are not as beautiful as those reared from the old stock, and that they are a little more cross. I am not now, as it was so often advised, breeding from the brightest queens only. I rear at least one or two queens from every queen I sell as long in the summer as it is practicable. I send off only queens that have proved prolific and pure; and in this way I hope to escape the evils of breeding in-and-in for the future. The fact that not one of five hundred customers I supplied with queens and colonies during the last two summers, have complained about prolificness, makes me believe that my queens were satisfactory. Mr. Gallup's three unprolific queens came, according to his statement in the AMERICAN BEE JOURNAL, from an eastern queen-breeder—if they were not, I am unaware of it. But even if breeding in-and-in is avoided, numerous and prolific queens can be reared.

Gallup gave some very good advice, "How to rear all prolific queens," in the AMERICAN BEE JOURNAL, and I think the editor would do well to induce him to write an article for the *Illustrated Bee Journal.* By avoiding the evils of breeding in-and-in, and following the advice of Gallup, a queen-breeder cannot fail to rear prolific queens, but I doubt whether good queens can be gotten up for a dollar or two. I, for my part, cannot do so.

One thing more I will add: Queen-breeders, as well as other bee-keepers, should save all the cells that are built in colonies that voluntarily swarm. In this way they will get queens that are reared as such from the egg. It is my experience that queens of that kind are more durable and more prolific than queens reared from larvæ a number of days old. If queens have to be reared under compulsion, the cells for them should be built in full colonies, and not be removed from them until the last day or two before hatching, that is, when they are six or seven days sealed over. Such queens are, with a few exceptions, rarely as good as the best.

CONSUMPTION OF HONEY BY DRONES AS COMPARED WITH WORKERS.

Translated from Berlepsch's Book, page 514.

To see how the consumption of honey by drones compared with that of worker bees, I took on Aug. 6, 1853, two small hives and put into each of them one comb, with a large amount of unsealed honey; the weight of each I carefully noticed. I then took from a straw hive that I intended to take up, 1,000 worker-bees, and put them into one of the hives; 1,000 more workers and 1,000 drones I put into the other hive, gave each of those hives a caged fertile queen and put them away into a dark cellar.

On the 18th of August, twelve days later, the comb in the hive with the workers had decreased only two ounces in weight, while the honey-comb in the hive with the workers and drones had decreased 8¼ ounces, so that one drone had consumed 3⅛ times as much as a worker, or 320 drones consumed as much as 1,000 workers. Therefore, if a colony has to feed 2,000 drones for 84 days only, it requires 5 pounds and 7¾ ounces to do it.

This calculation, however, is certainly too low, because drones, if not kept quiet, as in this experiment, and allowed to make repeated excursions, will surely consume a good deal more. At the same time, all the food is wasted that is used for nursing the drone-brood. There is, too, doubtless, more food required for drone-brood than for worker-brood, which can be ascertained by weighing a comb with drone-brood just sealed over.

Jefferson, Wis., Mar. 12, 1870.

[The foregoing article was thoughtfully sent to us by Dr. Gallup, of California, who had noticed that some of the present-day queen-breeders were advocating extra-light queens, etc. The Doctor, who was well acquainted with Mr. Grimm, says that "in his day he was an extra-good authority." Although the article was written over 20 years ago, it will, no doubt, be read with interest to-day.—ED.]

Our
Letter Box
Reports Prospects &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

A Correction, and the Past Season.

I notice on page 344 it says that I had a colony of bees that stored only 35½ pounds of honey in four years. What I meant to say was, they never swarmed, and I got 352 pounds of honey, instead of 35½ pounds.

The honey harvest ended here on Sept. 12th. We had only two honey-flows this year—basswood and golden-rod. Black-heart was no good, as it was too dry. A colony of bees on the scales gained 73 pounds on basswood bloom, and on golden-rod 43 pounds. G. W. NANCE.

Anthon, Iowa, Sept. 18, 1893.

Bee-Hunting—How It is Done.

About the time new swarms commence watering their young, go to a stream and follow it until you find a sand-bar. Sit down and keep a good lookout for a bee. When she gets filled, she will take a bee-line for a tree, or log on the ground. Mark the line about as far as you think they are from the tree. Now see if the bees are watering at some other point on either side of the main line; if they are, get another line, and mark it through until you intersect the first line, and where they cross, there you will find the tree, log or stump that has the bees.

These cross lines you can get much better in the fall after the frost has killed the bloom. Take an old comb, go to an open place in the woods, make a small fire, place some comb on it, which will send up fumes in the air, and a bee crossing that way will come down to the ground and come to the honey that you may have on a stump close by. The honey may be half water poured on a comb.

You will have to wait some time before the bees get to going straight, if they are half a mile away, but if close by, they will swing around but very little before you get the line, then mark the line with a hatchet, or break some limbs off, or having some paper in your pocket, put some sticks in the ground and stick the paper on. After doing this, change the bait on either side of the line. The bees will soon find it, and then you will soon have another cross line.

Sometimes you can follow the bees to a tree by the roar they make working on the bait. Sometimes they will have the whole colony there, except the queen and young ones, but where they are so ravenously hungry, they are no good for honey; for when you cut the tree you find only what honey you fed them from the stump, and that will be a little "thin."

Kenney, Ills. Geo. Poindexter.

Results of the Season, Etc.

We do not profess to be experts in bee-keeping, but we keep about 75 to 100 colonies of bees, and produce some very fine comb honey, but we do not run our bees for extracted honey. We have a river trade which takes between two and three thousand pounds of section honey per season. We have shipped one wagon-load of comb honey north. We will have something less than 3,000 pounds of white honey this season.

Last winter cleaned out more than ⅔ of the bee-keepers near here, and a good many of them have quit for good. We had a pretty fair season for honey this year, and all of our farm crops are good. Corn would have been better with more rain, but it is pretty good as it is. We put in 15 acres of Alsike clover, which will give our bees something to work on next spring and summer. We find Alsike yields more honey than red or white clover.

Our bees are bringing in some honey from the islands. They have only to cross the Mississippi river channel for their fall stores. G. G. Brown.

Bellevue, Iowa, Sept. 20, 1893.

Winter Feeding of Bees, Etc.

As the time of year is at hand to feed up for winter, I will give my method, which I prefer to any other I ever tried: Take off the supers or honey-boxes, and make a honey-board out of one-half or three-fourths inch lumber, with a bee-space on the under side of the board; a 2-inch hole in the center, and one in each corner, if you wish to feed rapidly. Take quart fruit-cans—half gallons if your upper story will go on over them; fill them with sugar syrup, tie a piece of cheese-cloth over them, and turn them bottom side up over the holes. The syrup will run through only as fast as the bees keep it clean on the under side. If you use glass cans you can see how fast they take it in.

To make a syrup, take 5 parts of sugar and 2 of water, bring it to a boil, skim it, and then it is ready for use. Each colony should have 20 to 25 pounds on which to start in the winter.

In our section of country (Parke county) we have had only a very moderate yield of honey this season. It being wet in the forepart of the season fruit-bloom was very limited; then the prospects were very favorable for a good crop. Dry weather set in sooner than usual, and cut supplies short. There is very little fall honey. I got 30 pounds of comb honey each from the best colonies; I had 24 old colonies and 12 swarms. Henry Durham.

Sylvania, Ind., Sept. 6, 1893.

How Not to Introduce Queens.

In the first place, get your queens. Don't do as a friend of mine did recently. He wrote to a queen-breeder, beyond the Lakes, ordering a lot of queens with which to supersede those now presiding over his colonies of the most pestiferous bees he ever handled. So bad are they that the whole neighborhood are up in arms against him, and the poor man is at his wits' end. He resolved to change the breed, and accordingly sent for a dozen Italian queens.

Without waiting the arrival of the new queens, our hasty friend killed the present incumbents so as to be ready to introduce the new ones immediately upon their arrival. But, alas! the new queens have not yet come, and four long weeks have elapsed since they were to have been sent, which means four weeks of dwindling. It is very obvious to remark—Get your new queens first, before you kill the old ones, else you will be troubled with dwindling and laying workers.

We are somewhat surprised that a bee-keeper of ten years' experience would make such a blunder, and yet the confiding clergyman thought all bee-keepers were men of probity, especially queen-breeders, and, nothing doubting, proceeded to exterminate the mothers of such cross bees with which there was no living in peace. But doubtless the queen-rearer, when he gets time, will explain why the queens were not sent. J. W. Vance.

Madison, Wis., Aug. 25, 1893.

A Binder for holding a year's numbers of the Bee Journal we mail for only 50 cents; or clubbed with the Journal for $1.40.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

Oct. 12.—Susquehanna Co., at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Oct. 18-20.—Missouri, at Pertle Springs, Mo.
P. Baldwin, Sec., Independence, Mo.

Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Dr. C. C. Miller....Marengo, Ills.
Vice-Pres.—J. E. Crane.......Middlebury, Vt.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, post-paid, from this office, $1.00; or clubbed with the Bee Journal for one year, for $1.70.

Full of the Freshest Thoughts. —Here is what the *Wisconsin Farmer* says of this paper: "The American Bee Journal is the senior bee-journal in the United States. It has been from the start ably conducted, and continues in the lead of bee-journalism. Every bee-keeper of progressive tendencies should be a subscriber. It is a weekly magazine, and is always full of the freshest thoughts on bee-matters."

Read our great offers on page 421.

The Columbian Meeting of the North American Bee-Keepers' Association will convene at the "Louisiana Hotel," Cor. 71st St. and Avenue B, Chicago, Ills., at 1:30 p.m., Oct. 11th. All who arrive before the call to order, are requested to hand their names with Dues to the Secretary, who will be at the Hotel on Oct. 10th, and during the morning of Oct. 11th. This plan will facilitate the business of the Convention.

TOPICS FOR DISCUSSION.

The following are some of the subjects that will be discussed at the convention:

President's Address.
What Experience Has Taught Us the Past Few Years.
Fixed Spacing and Prevention of Brace and Burr Combs.
Queen-Rearing as an Occupation for Ladies.
Queen-Rearing.
Sending Queens Long Distances.
The Production of Comb Honey.
The Winter Losses—Their Remedy.
The National Bee-Keepers' Union—Its Scope and Legitimate Work.
The Control or Prevention of Swarming.
Should there be Any Change in the Rules for Grading Honey Adopted at the Last Convention?
How Can the Usefulness of the North American Bee-Keepers' Association be Increased?
Apiculture at Our Experiment Stations.

WHO WILL BE THERE?

In addition to those mentioned last week, and also on page 423 of this number of the Bee Journal, the following are expected to be present:

Mrs. Jennie Atchley and W. R. Graham, delegates from the North Texas Bee-Keepers' Association.
Mrs. A. A. Simpson, of Pennsylvania.
Mrs. J. M. Null, of Missouri.
Hon. C. Grimm, of Wisconsin.
Henry E. Bliss, and Mrs. Bliss, of New York.
J. A. Foster and B. Shanks, of Ontario, Canada.
Jno. H. Stuart, of West Virginia.

Also some hundreds of others. They will swarm from the East and West, the North and South; from beyond the Great Lakes, from the Atlantic coasts, from where the great mountains slope to the peaceful Pacific, from the broad prairies, and from the Sunny Southland, they will gather round the Queen of Cities—Chicago the Peerless.

STILL MORE TO FOLLOW.

There'll still be something after the Bee-Keepers' Week. The American Poultry Association will meet in Chicago the week after the North American Bee-Keepers' Association, and at the same time the grand exhibition of poultry will take place. The Secretary, Mr. Geo. E. Peer, of Rochester, N. Y., has extended a cordial invitation to members of the North American to be present. Frank Benton, *Sec.*

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, at its last meeting, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

* * *

CHICAGO, ILL.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, 5@7c. Beeswax slow at 20c.
Sept. 14, J. A. L.

CHICAGO, ILL., Sept. 15.—The receipts of comb honey have not been in excess of the demand up to this date. We have yet very little surplus. Prices remain at 15@16c. for the very best grades. Discolored combs and the darker grades generally are slow of sale at about 14c. Our sales, however, are chiefly at 15c. We consider this about the best season of the year for shipping and selling comb honey. It stands transportation better than it will when the cold weather comes, and people buy it in larger quantities than they do later in the fall. Extracted is nominal, some sales being made all the time at prices ranging from 6@7c., with some other dark goods a little lower. Beeswax salable at 22c. We would advise those having honey ready to ship, to send it forward during this month, or early next. R. A. B. & Co.

ST. PAUL & MINNEAPOLIS, MINN., Sept. 12.—The receipts of honey are quite liberal, especially the last two weeks. A great deal of Wisconsin comb honey has arrived and is in very good condition; this is being sold at 13½@16c.; the lower price being for darker honey, which, however, does not meet with an active inquiry. California 1-lb. sections selling at 14@16c. Two or three carloads of extracted honey have recently arrived, and sold at 6½@7c., there being little or no difference between white and amber as to price obtained in this market. The best season for comb honey is now coming on. S. & A.

CINCINNATI, O., Sept. 18.—Demand is slow for extracted honey with plentiful arrivals. It brings 5@8c. Choice comb honey is in good demand at 15@16c. for best white. Arrivals are good.

Beeswax is in slow demand with large arrivals at 20@23c. a pound for good to choice yellow C. F. M. & S.

BOSTON, MASS.—Fancy white, 16@18c.; No. 1 white, 15@16c. Extracted, white, 7@8c.; amber, 6½@7c. Beeswax, 25@28c. B. & R.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

KANSAS CITY, MO., Sept. 14.—Demand is good. Supply light. We quote: 1-lb. comb, 16c.; light weight, 14c. Extracted, white, 7½c.; amber, 6½c.; dark, 5@5½c.
Beeswax, 22@25c. H. & B.

NEW YORK, N. Y., Sept. 12.—Our market remains quiet. New comb honey is arriving freely, and the demand is rather light. We quote: Fancy white, 1-lb. sections, 14@15c. Off grades irregular and in no demand. Extracted is selling slow at from 60@65c. per gallon for Southern, and 5¾@6c. per pound for Californian. Beeswax dull at 23@24c. H. B. & S.

ALBANY, N. Y., Sept. 28.—The market for comb honey is firmer, and demand good. Extracted honey is slow. Present indications are that there will be too much extracted honey this season. We quote: White comb, 15@16c.; mixed, 13@15c.; dark, 11@12c. H. R. W.

CHICAGO, ILL.—We quote: Fancy selling at 16c.; choice, 15c.; No. 2, 13@14c.; poor, 12c. With prospects of a large crop, we advise early shipments to the market. Extracted selling at from 5¼@7c., depending upon the color, flavor and style of package, and quantity the buyer will take. Beeswax, 22@24c. We have no stock on hand. S. T. F. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

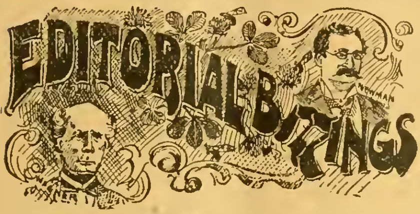
C. F. MUTH & SON, cor. Freeman & Central avs

Wanted—Comb Honey.
Highest Cash Price paid for same. Address,
I. J. STRINGHAM,
12A3t 105 Park Place, New York City.

Established in 1861
THE AMERICAN BEE JOURNAL
Oldest Bee-Paper in America

GEORGE W. YORK, Editor. | Devoted Exclusively—To Bee-Culture. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., OCT. 12, 1893. NO. 15.



It Grew by the wayside where travelers trod,
On hillsides and pastures, tho' barren the sod.
Neglected, despised, a poor, yellow weed,
That gave to the care of the wild wind its seed.

The bees learned its secret, the wind told the tale,
As he hurried along over meadow and dale;
For the sweet perfume lingered where'er passed his feet,
Of the kisses he stole from the Golden-Rod sweet.—*Selected.*

◆

Next Week we no doubt shall be able to tell you a little about the convention of bee-keepers now being held in Chicago—if you were not there to see for yourself. We hope to be able to report the biggest and best convention in the 25 years of the North American's history.

◆

Mr. R. C. Aikin, of Colorado, called on us last week. He came ahead of the convention so as to be on hand when the "show" begins. He brought along a large number of samples of various kinds of honey to exhibit to the members of the North American this week. Mr. A. is a splendid and thoroughly practical writer on bee-topics. He won't be lonesome at the convention.

Mrs. Frank Benton called at our office a few days ago. She is a very pleasant and entertaining sister. She said that the whole Benton family expected to attend the convention. Ralph will be on hand, but likely not with his bicycle. All will remember that we had a picture of the young man on his bicycle, in the BEE JOURNAL a few months ago. His mother says he has one colony of bees that he takes entire charge of. He should be called on at the convention to give his "experience" with bees, both in Europe and America. He might tell it in his two "mother tongues" that were spoken of in his biographical sketch.

◆

The North American Convention will be in session before our readers receive this number of the BEE JOURNAL. We hope to meet and greet many of our friends during this week, between the meetings. We have been looking forward with intense interest to this time, and trust that everything may be delightfully harmonious and thoroughly enjoyable. We have done all we could to assure a successful gathering, and now anticipate a glorious time, at "the gathering of the clan."

◆

Mrs. Sallie E. Sherman, of Salado, Tex., has recently been appointed Vice-President of the Woman's Congress of Texas. Mrs. S. is one of the most prominent lady bee-keepers of that State, and wrote a few days ago that she hoped to meet the members of "our fraternity" this week at the North American convention. We have the picture and biographical sketch of Sister Sherman, which will appear soon in these columns.

Mr. Geo. T. Gunn, of Iowa, is a great deal safer than his back name would indicate. He favored us with a pleasant call a few days ago. He is one of the younger bee-keepers, but keeps his eyes open for apiarian "game." Last winter two of his colonies became queenless in the cellar and went into other hives. One colony was in a hive directly above another, and there being a crack in the cover of the lower hive, the bees from above all went down and united with the bees below. In the other case, the two hives were side by side, and the one colony went out of its hive-entrance and into the entrance of the other hive. Mr. Gunn knew the two colonies had thus united, as two hives were entirely empty of bees, and the other two colonies were just double the strength in bees, of any of the others in the cellar.

Mr. H. B. Sisson, of Ottumwa, Iowa, died on Aug. 16, 1893, after only a few hours' illness. He would have been 71 years old had he lived until Aug. 26th. He had been a bee-keeper for 25 years, 15 years of which he run his apiary in connection with dentistry, and the last 10 years of his life he gave his entire time to bee-keeping, as his health failed so that he had to get outdoors, away from his office work. Mr. Sisson had been a careful reader, as well as correspondent, of the AMERICAN BEE JOURNAL for years. Thus we are again reminded that Death still calls, and enforces his demands.

Mr. J. F. McIntyre, of California, has sent us a photograph of his 8-comb honey-extractor, which reverses while in full motion. The picture was taken after it had extracted 44,000 pounds of honey without injury to the combs or machine. It is a regular "Jumbo." Few bee-keepers in this "neck of the woods" would have any use for so large a machine; but in California, where they do big things on a big scale, it is just what they want.

The Apiarian Exhibit, in the southeast corner of the gallery of the Agricultural Building, will likely be visited by the convention in a body, this week, and no doubt they will be able to "help" Judge Secor in making the proper awards.

Old Bees Do Not Locate their hive when swarming, says Bro. Hutchinson editorially in the *Review*. He says that this season "he was practicing the Heddon method of preventing swarming, that of leaving the old hive by the side of the swarm for seven or eight days, and then moving it away, but neglected to move one hive until the ninth day in the afternoon. Within half an hour after the removal a second swarm issued. The queen did not go with the bees; probably she was too young to fly. According to the rules, the bees should have returned to the hives from which they issued. About one-third of them (probably those that had never before left the hive) returned to the hive from which they had swarmed, and the rest of them went back to the old location and joined the swarm that was hived nine days before on the old stand."

Mr. E. France's Report, from Platteville, Wis., for the season of 1893, in *Gleanings* for Oct. 1st, shows a total of a trifle less than 40,000 pounds of extracted honey taken from a spring count of 323 colonies. The bees were in seven different yards. The honey was secured between June 19th and July 20th, and 1,400 pounds was extracted in two hours, with a two-frame, non-reversible machine.

The Illinois Dairy Exhibit is an elegant little 32-page pamphlet "souvenir" issued by the Executive Committee of the Illinois Dairyman's Association. It is printed on enameled paper, and beautifully illustrated. It shows that the total annual value of the dairy products of Illinois is over $75,000,000. W. R. Hostetter, of Mt. Carroll, Ills., is the Secretary.

Exhibits of Honey at Fairs.—A short time ago, we received the following comment on the discussion in the BEE JOURNAL regarding the New York honey exhibit. It is so "to the point," that it will serve very nicely as a further "final reference" to that subject. It was simply signed "Far West," and though our rule is not to publish any anonymous contributions, this one is so unique and interesting that for once we lay aside the "rule" and allow it to pass in. As it is evidently written with the kindest of motives, and feeling of sympathy, it will be all the more ac ceptable. Here is what Mr., Mrs. or Miss Far West has to say about the matter :

Mr. Editor :—Isn't it a little strange that so little progress is made in the East, and that they still cling to the ways of thinking that were fashionable when our grandfathers were boys ? It is necessary to travel West in order to see things clearly. There's that man Hershiser, a well-meaning sort of person, no doubt, but Dr. Mason is having a hard time to get him to see that when a case of honey is seen at a Fair, the whole of the honey in the case is not on exhibition, but only that which is in sight. But then Hershiser has lived in New York all his life.

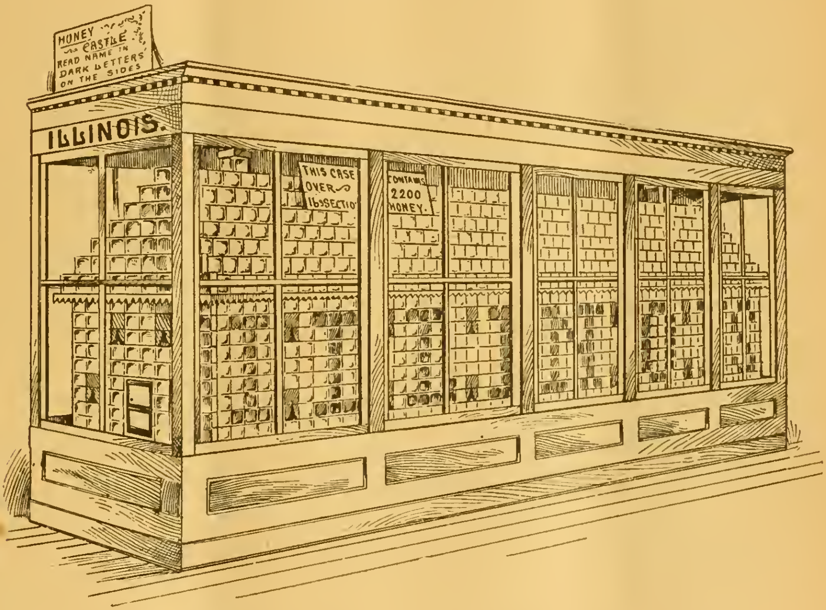
When I lived in that State, I took to a Fair a case containing one-pound sections. It was credited to me as a display of 24 pounds of comb honey, just as it would be credited if I lived there to-day. When I moved to Ohio, I entered at a Fair a similar case, as 24 pounds of comb honey. I was politely informed that I had only 6 pounds of honey on exhibition, as only 6 sections could be seen through the glass of the case, and the other sections not being in sight could not be considered on exhibition.

After moving farther West, I tried the same thing, but learned that as only one side of each section could be seen, it could only be said that 3 lbs. were on exhibition.

Last year I moved still farther West, to the place where I now live. I took a 24-pound case of honey to the Fair, but didn't feel exactly certain how much honey I should say was on exhibition, so I showed him what I had, and asked him how I should enter it—how much honey I should enter. "Why, my dear sir, said he, "you have no honey on exhibition. You see, we only count what can be seen as on exhibition. No matter how much honey may be in the case, no one sees anything but the surface, and that's just the cappings, so the proper way to enter your exhibit will be to enter so much white wax. Of course I could see it plainly enough, as soon as my attention was called to it.

And yet there is that wrangle over an exhibit of white beeswax at the World's Fair, disputing as to the amount of honey, when there is no honey on exhibition at all.

Far West.

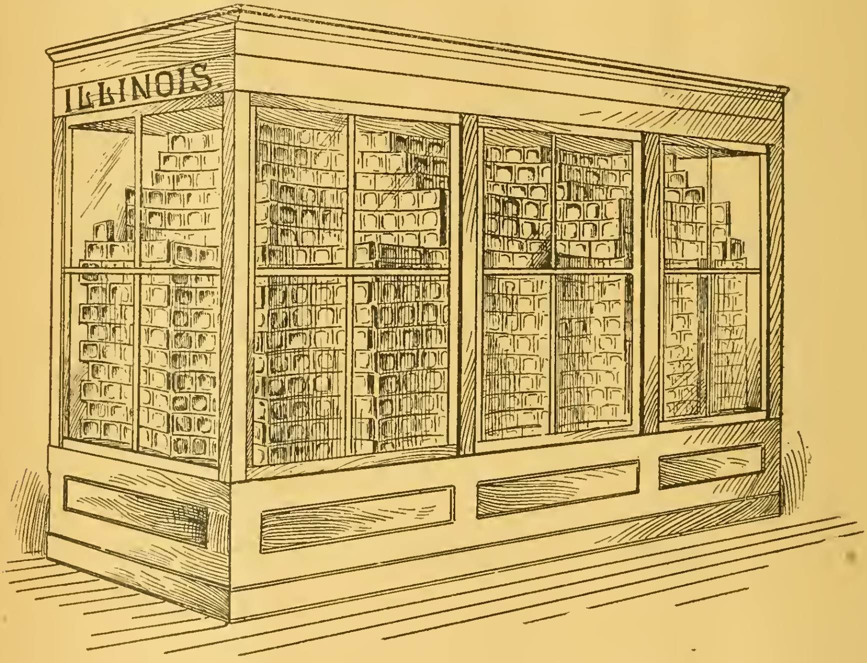

HONEY CASTLE
READ NAME IN DARK LETTERS ON THE SIDES
ILLINOIS.
THIS CASE OVER 165 SECTIO
CONTAINS 2200 HONEY.

No. 1.—*The Illinois State Honey Exhibit at the World's Fair.*

The Illinois Honey Exhibit at the World's Fair is a very great attraction. Bros. J. M. Hambaugh and Jas. A. Stone are entitled to much credit for the fine display that they have installed for the bee-keepers of the State of Illinois. Considering the exceedingly limited time in which they had to complete the exhibit, it is indeed a remarkable showing of the industry in this State.

In order that the description of the illustrations of the exhibits may be better understood, we number them as follows :

No. 1.—The first show-case you approach from the north has the "Honey Castle," which contains over 2,200 pounds of comb honey, with a placard in front stating these facts. There is sufficient dark honey in sections on the sides so that by their arrangement spells the word "ILLINOIS." A placard is posted in two different places worded thus: "Read name in dark honey." This castle was designed by Bro. Hambaugh, with the exception of the lettering on the sides which was put in by the suggestion of Bro. Stone. This piece of work nearly fills the entire case, which is about little honey-bee, under the guidance of Mr. Aaron Coppen, of Wenona, Ills. It is the familiar inscription found on our coins—"In God We Trust." Mr. Coppen also sends his autograph, put up in the same way, viz: "A. Coppen, Wenona, Ills.;" but Mr. Coppen failed to send an exhibit of honey, owing to the prevalence of honey-dew in his locality, and he apologizes for the dark appearance of his mottoes, though they were considered very worthy of exhibition, and were installed.



No. 2.—The Illinois State Honey Exhibit at the World's Fair.

25 feet in length, by 8 feet high and 5 feet broad.

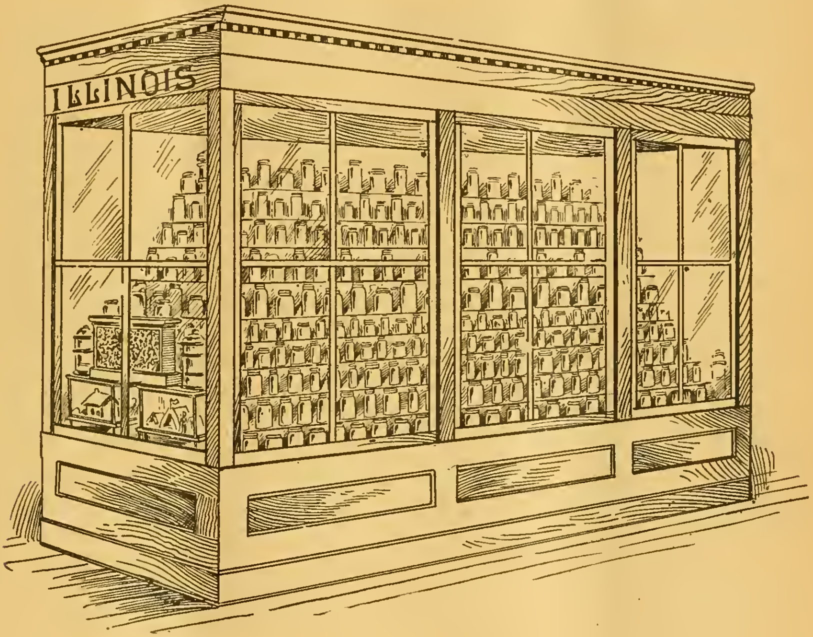
No. 2.—Standing next to No. 1 on the south, is the competitive exhibits of virgin white clover honey, from various parties, chief among which are Dr. C. C. Miller, W. C. Lyman, L. Highbarger, E. Whittlesy, Jas. A. Stone, Geo. F. Robbins, Geo. Poindexter, G. D. Rogers and others. This case is 15 feet in length, and filled to the top in fantastic shapes. A placard on the sides reads thus: "All Illinois honey, this year's crop." A piece of work adorns the front of the case, that was made by the ingenious

No. 3.—This case is called the "Puzzle Case," and is composed entirely of extracted honey put up in a multitude of forms, mounted in pyramid shape, and, to all appearances, counter pyramid form. It is a puzzler to the unsuspecting gazer. In this case will be seen the ingenious device worked out by the bees according to Bro. Poindexter's idea, entitled "Sweet Home." This is a complete cabin of honey, including door, window, old-fashioned chimney, etc. Installed near it is "Soldiers in Camp." This is a production of tenting grounds with honey, and soldiers standing as sentinels. It is very unique, and shows what can be done with the "busy bee." Surmounting these designs is an observatory hive of real, live bees, but it must be understood that they are not storing honey. A placard may be seen in front of the case, directing the observer to "See Above," and thus behold the pyramid of honey as seen in the mirror ceiling.

No. 4.—The next, and last, case on the south side is largely composed of the wax exhibit, chief among which is that of the comb foundation and wax exhibit of Chas. Dadant & Son, of Hamilton, Ills. Bros. Dadant have furnished a very interesting piece of work, and it never fails to catch the eye of the passer-by. It is a two-story dwelling-house, finely finished, and elaborately colored in various shades of wax. The lettering along the roof reads, "Illinois Beeswax." Above, and surmounting all, is seen in wax and honey, the words "World's Fair." This case is one of the most attractive in the whole exhibit. Mr. Geo. F. Robbins also contributed some interesting wax work. In quantity and variety of designs, this wax exhibit perhaps exceeds that of any other State.

There is also in the Illinois exhibit variout forms of confectionery, made with honey in place of sugar.

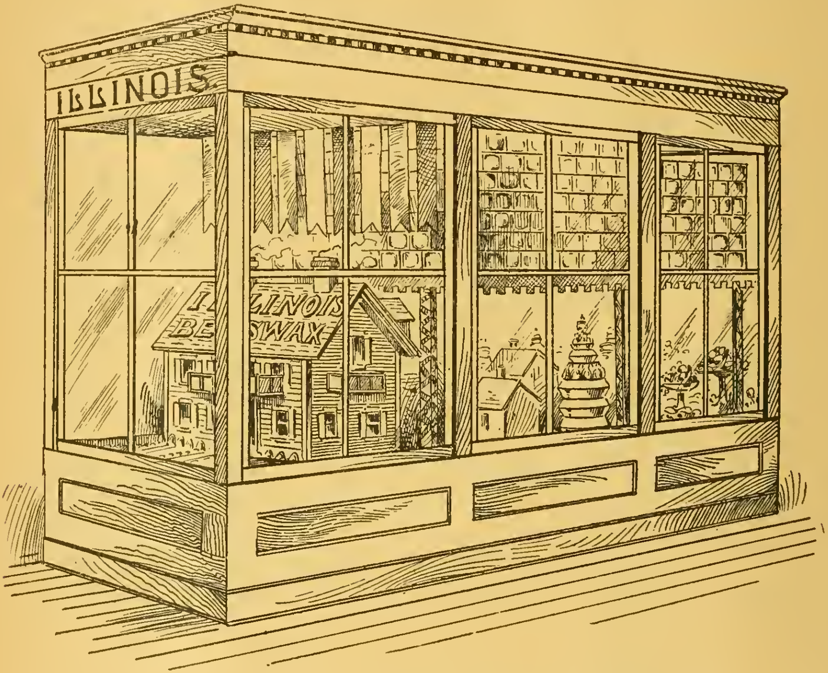
Above the show-cases is a large sign, perhaps 25 by 3 feet in size, upon which is painted, "ILLINOIS HONEY EXHIBIT." It can easily be read from the center of the Agricultural Building, several hundred feet distant.



No. 3.—The Illinois State Honey Exhibit at the World's Fair.

Our quartette of illustrations of the Illinois honey exhibit are singularly correct (with the exceptions of a few designs added since the artist made the sketches), as may be attested by those who have been so fortunate as to see the exhibits themselves. Hence those who may not be able to visit the Fair will now know just how the honey and wax exhibits of Illinois really appeared. We hope to soon follow these pictures and descriptions with those of other States that we have, as yet, not presented in the Bee Journal columns. It is a nice way to preserve, in permanent form, the beauties of the principal attraction in the great Agricultural building at the World's Fair.

Doubtless the members of the North American convention, in a body, will be inspecting the apiarian exhibits while those of our readers who have been compelled to remain at home are reading this number of the BEE JOURNAL.



No. 4.—The Illinois State Honey Exhibit at the World's Fair.

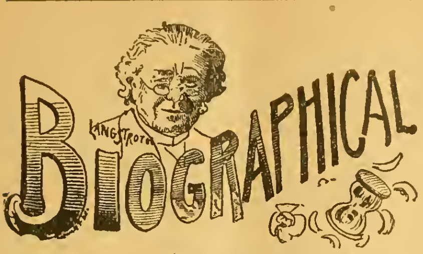
Bee-Keeping in Sweden.—The keeping of bees was in olden times very common in Sweden, but became less and less general as the mead, for which the honey was used, was more and more replaced by other beverages, and sugar became cheap and easily obtainable.

Bee-keeping, however, if properly managed, fully repays the labor expended upon it in Sweden, without taking into account the role that bees, as well as many other insects, play in the fertilization of plants. Private individuals, as well as the agricultural societies, recognizing this fact, have lately tried to excite interest in this occupation, which, in many parts of that country, is favored by natural conditions. The agricultural societies have appointed persons to give advice and assistance concerning the care of bees, improved construction of bee-hives, etc. In consequence of climatic conditions, the keeping of bees is confined to the southern half of the kingdom, but occurs exceptionally as far north as Lulea.

The number of colonies in the entire kingdom of Sweden may be reckoned as about 100,000. As regards the production, there are no statistics. During the years 1886 to 1890, about 14,000 kilog (30,000 pounds) of honey were annually imported; the export of wax being somewhat larger than the import.

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us, as we use many more one-cent stamps than the two-cent kind.

Great Premiums on page 453!



NO. 51.—JOHN M. HOOKER.

Among the more prominent bee-keepers in Great Britain is our subject this week. We had the very great pleasure of meeting Mr. Hooker a short time ago, when he was at the World's Fair. He also went to Canada, and visited as many bee-keepers on this side the Atlantic as he was able to reach. He expected to leave for his home in London, England, on Oct. 1st, and doubtless ere this he has safely arrived there, after his round-trip journey of over 8,000 miles.

JOHN M. HOOKER.

Several years ago there appeared in the *British Bee Journal* an excellent biographical of Mr. Hooker, the principal portion of which we take pleasure in reproducing for the benefit of our readers, making such changes therein as shall correctly bring it down to date. The following, then, we feel will be read with no little interest, as the distinguished services which Mr. Hooker has rendered the cause of bee-culture in his own land, place him in the very front rank of English apiarists:

John Marshall Hooker was born at Brenchley, in the county of Kent, on April 26, 1829. He was the youngest son of Stephen Hooker, Esq., late of Broad Oak in that parish, who inherited, and died possessed of, considerable landed property in the counties of Kent and Sussex, which, by his will, he directed to be sold and divided among his wife and nine children then living.

At the age of 7 years, John M. was sent to a school well known in Kent—"Tudor Hall," Hawkhurst; when he was 12 years old he was removed to Great Ealing School in Middlesex, at that time kept by Dr. Frank Nichols, where he remained until he was between 17 and 18 years old. On leaving school he was articled to Wm. Caveler, Esq., an architect well known in the profession by the works he published on Gothic Architecture. After this he was for a time in the office of George Smith, Esq., the architect and surveyor to the Mercers' Company. On leaving Mr. Smith, he commenced on his own account, and has ever since carried on his profession of an architect. Mr. Hooker has built several churches, and restored others; he has built a number of parsonage-houses, schools and mansions; has laid out the roads and partly covered several estates with houses of a superior class.

Having been brought up in one of the prettiest rural districts, Mr. Hooker, at an early age, took great interest and pleasure in all the resources of a country life, and occupied his spare time in shooting, hunting, bee-keeping, and farming. His father, who was a very clever and scientific man, was an advanced bee-keeper, and during the summer holidays his son assisted him in his apiary, and accompanied him in his drives over to the apiary of Mr. Golding, of Hunton, in Kent, only a few miles distant; listened to the bee-talk, and witnessed the manipulation of the bees, which were kept in Huber and Grecian hives.

Mr. Golding was the author of a book

on bee-keeping, called "Golding's Shilling Bee-Book," and invented an improved form of Grecian hive, having movable *bars*, so that with a little management the surplus could be taken. These hives, which were not large, are storified three and four high, and were used by Mr. Hooker, who obtained large quantities of honey of a superior quality in the upper hives.

Upon the introduction of frames, Mr. John M. Hooker was amongst the earliest of those who adopted them, and his Grecian hives were given up.

At the beginning of the Volunteer movement, Mr. John M. Hooker took great interest in the same, and with his friend, George Tomkin, Esq., of Yalding, raised a corps in four or five adjoining villages, of which he was appointed Captain, his friend being Lieutenant. He was a good rifle-shot, and having a range of 400 yards on his own property, he was, without trouble, able to practice when he felt inclined. He won several prizes, and, among others, the cup given by the men of the battalion for competition among their officers.

In 1861 he was married; some time after he left Brenchley, and gave up the command of the corps, the 42nd Kent.

In 1874 Mr. Hooker became acquainted with Mr. C. N. Abbott and Mr. Frank Cheshire, and attended a meeting with those gentlemen (called by Mr. Abbott in the *British Bee Journal*) at Camden Town, for the purpose of revising a schedule of prizes for the first Crystal Palace Exhibition, and to consider the best means of forming a National Association.

On this occasion the Hon. and Rev. H. Bligh took the chair, and on his being obliged to leave, Mr. Hooker was called to the chair to finish the business, and was one of the committee then chosen, who afterwards carried out that memorable Show. At the general meeting of bee-keepers then present at the Crystal Palace, Mr. Hooker was chosen one of the members of the committee of the British Bee-Keepers' Association, which had then been formed.

From that time, 1874 up to 1889, Mr. Hooker had been one of the acting members of the committee of the association, being re-elected annually. In 1889, although asked by different members of the old committee, he declined to allow himself to be nominated for re-election. From that time up to the present, Mr. J. M. Hooker has been an *ex-officio* member of the British Bee-Keepers' Association, representing the county of Kent at the meetings.

At the second Crystal Palace Show in 1875, in Class 2, for the best movable comb hive for depriving purposes, the second prize and bronze medal were awarded to Mr. Hooker. In speaking of this class, the editor of the *Bee Journal* (Mr. Abbott) says: "We must, however, give credit where it is due. We may here remark that our first notion of a movable dummy, *the greatest improvement until now* introduced into frame hives, came from Mr. Hooker." In Class 4, for the best hive on the collateral principal, the first prize and silver medal were awarded to Mr. Hooker.

At the third show of the association held, at the Alexandra Palace, in 1876, Mr. Hooker was awarded a bronze medal in Class 2, a bronze medal in Class 3 for the best hive on the storifying principle, and the silver medal for the best collateral hive. In the editorial giving an account of this show is the following remark: "In all Mr. Hooker's hives the 5/24 inch *perforated zinc* plays an important part, as by its use the entrance of the queen and drones to the honey-comb in the super is prevented." Since that time the use of excluder zinc has become very much used both in England and America.

Mr. Hooker exhibited a super at the Royal Show at Windsor, in 1889, weighing 75 pounds net, which was filled by June 14th, through the Raynor pattern of *perforated zinc*. Surely this is tolerably conclusive evidence that it does not *much* interfere with the bees' working; there was no other super of nearly the same weight taken from one hive in the exhibition.

At the show at South Kensington in 1878, a bronze medal was awarded Mr. Hooker in the class for the best movable-comb hive.

At the great show at Kilburn in 1879, Mr. Hooker obtained a bronze medal for his Alexandra hive, and the same year at the exhibition at South Kensington, the silver medal for the same hive.

In 1880, at the South Kensington show, Mr. Hooker obtained a bronze medal for his hive, and another for his super.

In 1883, the first prize was awarded him for the best movable-comb hive.

Mr. Hooker was one of the judges at the Royal Agricultural Society's exhibition at Reading, in 1882; York, 1883; Shrewsbury, 1884; Preston, 1885; Norwich, 1886; and Newcastle, 1887; also at several of the Bath and West of England and Royal Counties Shows. In the Bligh Competition of 1882-83, he obtained the first prize for largest quantity of honey, etc., from one colony. Mr. Hooker's uncapping machine is very ingenious; it will be found of great service in facilitating the work of preparing combs for the extractor.

In 1888, he published a small book called Hooker's "Guide to Successful Bee-Keeping." He has also obtained several prizes and medals for comb and extracted honey at various shows.

Since he removed from Seven Oaks to Lewisham, although in the same county (Kent), the proximity to London has prevented his continuing bee-keeping to the same extent.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Untested Queens Asked About.

I have a question to ask about untested queens. A queen-breeder advertises Italian queens, and a bee-keeper orders one dozen of the untested Italian queens by return mail; when they arrive they are examined and found to be hybrids and blacks. Is that just?

H. W. McCOMBS.

Richmond, Iowa.

ANSWER.—An untested queen is one reared from an Italian mother, without knowing how she has mated. If she has mated with a pure Italian drone she will produce three-banded workers. If she has mated with a black drone, part of her workers will look like pure Italians and part will look like pure blacks.

You say that when the queens arrived they were found to be hybrids and blacks. There probably was nothing to judge from except the appearance of the queens. Few bee-keepers of experience would like to give a positive judgment as to the purity of a queen with nothing but the looks of a queen to judge from. Some are very dark, some are very light, and some are striped yellow and black.

The only question to be determined in the case is whether the queens sent were the progeny of a pure Italian queen. It will be seen that you must depend largely on the honesty of the man sending them out.

Purposes for Which Honey is Used.

I would like to see a statement showing for what purposes honey is used, and the portions used for different purposes. My curiosity is great to know where the barrels of honey go. L. M. BROWN.

Glen Ellen, Iowa.

Knowing the very extensive experience that Bro. Chas. F. Muth has had in selling honey for manufacturing purposes, we referred the above question to him for reply, and he has kindly given this interesting answer:

In replying to the questions of Mr. Brown, I shall endeavor to answer as fully as possible.

The proportions of honey used for different manufactures seems to be the business secret with each manufacturer. Once I had given unpardonable offence by stating, to a tobacconist, the quality of honey bought by one of his competitors. It has been stated that the saccharine contents of pure honey are almost the same as those of pure cane-sugar, but that the sweetening power of the former goes further than that of the latter. If correct, a manufacturer can easily find the proportion required for his special business.

During my experience, we had a season, every year, when one manufacturer or another, or one class of manufacturers or another, would buy large lots of honey for 4 to 8 months steadily, when their orders would be curtailed for awhile, or cease entirely, until their season would commence again. I can satisfy the curiosity of Mr. Brown only so far as to state the quantities sold, and to whom.

Our best customer among tobacconists was one to whom we shipped, for years, 3 barrels of honey (1,500 1,800 pounds) every other day; the next best one received 5 to 6 barrels a week.

Among bakers, our best customers received 5 to 10 barrels a week, and one of them a carload every fifth or sixth week.

A fruit-canner buys a few barrels of honey every fall for making pickles. A few pork packers and a few brewers buy occasionally 25 to 50 barrels of honey. If barley should ever again bring $1.50 a bushel, brewers would buy the bulk of the honey crop of America and Cuba. Pork men having used honey, acknowledged, in every instance, the superior quality of their meat. But I cannot account for the reason why honey is not in more general use among them.

One of our most important customers,

for many years, was a printer's roller manufacturer. Important, because the qualities he used went begging for buyers among all others. Honey-dew, buckwheat and other dark qualities were his preferences, because cheapest. One time, when we were out of cheap honey, I had sent him fine basswood honey at cost price, in order to hold his custom. He pronounced it adulterated, in spite of all my protestations. Offensive language followed, and the loss of a customer was the result. Having found other buyers for the same qualities, we have consoled ourselves.

Honey-vinegar is, perhaps, the best of all vinegars, but owing to the cheapness of the common article, its manufacture is principally confined as yet to bee-keepers. We use about a pound of honey to a gallon of water (40 pounds of honey for a whiskey-barrel), employing the natural process, the same as for cider-vinegar, exposing it to warmth and air. CHAS. F. MUTH.

STRAY STINGS *From— The Stinger.*

Said Mr. Drone to pretty Miss Bee :
"Long have I had my eye on thee ;
And if thou wilt be mine indeed—
To get my drink and also feed—
I'll live for thee, or for thee die."
Miss Bee just said—"Not I! Not I!"

There are some people who would sneer at the industry of the bee, because it doesn't furnish them with bread to spread the honey on.—*Selected.*

Golden drops of honey are as sacred in this country this year as golden dollars are. Perhaps the English "gold bugs" have prevailed on the "bugs" of the apiary to join with them in lessening the supply of gold in America. Who knows ?

What a pity it was that an Apicultural Congress of the World was not arranged for, that it might meet about the time of the great North American convention of bee-keepers. As it is too late to have such a congress this year, The Stinger now moves that such a convention be held in San Francisco on Washington's Birthday, next year, when the International Midwinter Fair is in full blast in that city. Who will second the motion ?

Speaking of such a congress, reminds me that there is no better time or place for holding this meeting than in the city and on the date named. Reduced fares will be offered to California at that season ; many Europeans come over to California during the winter and early spring. It is a time when our bee-keepers can better spare the time away from home than at any other period. California is a Mecca that the majority of mankind have a desire to see, and February and March are as good months to see it in as any time of the year, provided the sight-seer does not wish to see it when the hills and dales are one mass of flowers, as they are toward the close of April, and in the month of May.

Mrs. Atchley advertises in a late number of the AMERICAN BEE JOURNAL for a sample of foul brood which she wishes sent to a certain Doctor in Texas, who is to make a microscopical examination of it for her. The trouble is, she only asks for a wee little bit; I am sure there are dozens of bee-keepers in this country to-day who would gladly send *all* they have, if they thought by so doing they could get rid of the plagued disease for ever.

I notice that the editor reports that some honey has been produced by Doolittle's bees that are on exhibition at the World's Fair. Now, if bee-keeper Doolittle could only get a couple of tons of honey from those bees, and sell the product at the rate usually demanded for commodities on the Fair grounds, what a fortune he would have ! Just think of it, ye bee-keepers who have been getting no honey these long years past !

Talking about "experiment stations," reminds me that every man becomes such a station when he gets a sting under his nose. I will bet a pin against a last year's bird-nest, that such a fellow will *try* everything that he can lay his hands on, in the hope that he will find in it a remedy to allay the pain the sting is causing him. Have you ever been there, my friend ?

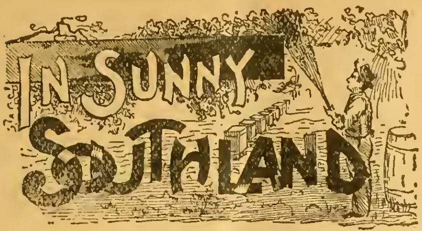
"I knows why bees never sit down," said Walter.

"Why, my dear?" asked his mother.

"'Cause they has pins in their coat-tails, and they's afraid to."—*Selected.*

◆

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents ; or clubbed with the JOURNAL for $1.40.



CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Worker, Drone, and Queen Origin.

MRS. ATCHLEY:—Does the shape of the cell and the food of the larva make one a worker, one a drone, and another a queen? P. G. CARTER.

Friend Carter, the size and shape of the cell together with more food causes a worker larva to develop into a full-developed mother, or gives the bee the power to become mated and take up the duty of egg-laying; while the workers being confined in a smaller cell, and only has food to barely put her through, causes her to be more compact in build, and hardy, and capable of doing a great deal of flying, but cannot become a mother of females, though she may lay at times when the hive is hopelessly queenless, but drones always result.

All eggs laid for worker-bees, or that will produce worker-bees, would or could be turned into queens if they were placed in queen-cell cups, and cared for by the bees; but an egg laid for a drone will make nothing but a drone, no difference where reared, or what kind of food is used, or how much, in his production. A drone is a male, and has no part of a female in his make-up. Therefore, he can *never* be anything but a drone. JENNIE ATCHLEY.

Working Two or More Queens in One Hive, Etc.

I see on page 705 of *Gleanings* for Sept. 15, 1893, that Mr. B. Taylor, of Minnesota, claims to be the originator of keeping two or more queens in a single hive. Now, Mr. Taylor will please take no offense, when I tell him that we have done this thing for more than ten years, or a long time, at least; and if I am not mistaken, I published it in 1884, and have since become so used to it that we think it only a common thing down here in Texas.

This year, Willie has reared queens on the Doolittle plan, by placing queen-excluding division-boards in a long or wide hive, and when I scolded him for fooling with such hives, he assured me that it was one of the best plans to rear queens, as he has four departments and two laying queens in the same hive all the time. He moves the frames containing queens and brood first to each of the two outside boxes or partitions of the one box, rears a batch of cells in the middle two, then turns the queens into the middle ones, and starts cells in the two outside ones, and so on. The bees all mix and work together as one colony, and of course the queens are accepted anywhere in the hive.

We also work hives every year with two laying queens together in the same hive, and this year we sent to Mr. A. I. Root four laying queens (vigorous young ones) in one cage, and two died or were killed, or perhaps died as do workers in shipment. Mr. Root mailed them back just as received, and the two queens arrived back to Texas all right, and occupied the same hive until we prepared them to move, and as they had too many bees together to move successfully in hot weather, we made a division, and now they have a colony each.

Now, I would just like to save Mr. Taylor's next year's work, as he says he will demonstrate by another season's labors whether he is successful in discovering a non-swarming method. I can tell him right now, that it will never do in this country, for we have tried it.

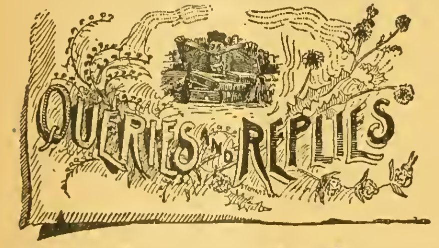
Now, I believe when the seasons, etc., are right, bees *will* swarm because *God* said so, and I believe Him. Mr. Taylor will please not think that I have jumped up as a critic, for such is not the case. I tried his plans years ago, and the bees *swarmed*, both old queens coming out with the swarm, and have been hived together and worked together, and large yields have been the result; and while I nearly discovered this alone, I will tell where I caught the idea. If you remember, some years ago, Chas. Dadant reported that he had by mistake left two queens in a hive all winter, by forgetting one that he had placed in the hive caged, and the next spring he found both queens alive and O. K., but the caged one was still in the cage. But from this I caught the idea of two queens in a hive.

Now, as Mr. Taylor gave a warning note at the close of his article in *Glean-*

ings, I thought best to mention this matter now, to show him how far he was behind, and that he might not lose next summer's work, as we class such bee-keeping down here as only common things.

SECTIONAL BROOD-CHAMBERS.

Now, a long time ago, when I was not writing any for the bee-papers, I used a sectional brood-chamber four inches deep, or frames 4¼-inches in depth inside, that held just one tier of sections. I have some of the old frames now, and some years after I had thrown them away, here came along Mr. Heddon, of Michigan, and patents the very same thing, and sells it all over the country, and the people are mostly, I believe, now doing what I did—throwing them away. Well, as I was not writing any, I just let the matter pass without saying one word about it; but as Mr. Taylor sounded his warning note, I blow my horn to his warning, and say that if he wishes priority in this thing, he must go back of 1884, and I will willingly hand over my "checks." I write this in all love and candor. JENNIE ATCHLEY.



What About Improving Utensils in Bee-Keeping?

Query 892.—1. Along what line do you think there is most need for improvement in utensils used in bee-keeping? 2. Or are the most important apiarian fixtures good enough? As one interested in inventing new things or improving old ones, I ask the foregoing questions.—Inventor.

We are pretty well off now.—A. J. COOK.

I think the more important fixtures are good enough.—MRS. L. HARRISON.

About all of our utensils are "good enough" to be improved.—P. H. ELWOOD.

There are too many inventors in bee-culture, and too many inventions which are more injurious than useful.—DADANT & SON.

1. Along all the lines. 2. Nothing is good enough if we can get *anything better*.—H. D. CUTTING.

1. In the line of the wooden appliances, as hives, crates, etc. 2. No, they are not.—J. H. LARRABEE.

Non-swarming hives, and controlling the mating of queens as practically as in the mating of other stock.—G. M. DOOLITTLE.

Improve the extractor. Invent some way to fertilize the queens with selected drones. More things could be added, but that is enough for one year.—E. FRANCE.

1. Along the line of simplicity. To get rid of moth-traps, self-hivers and other traps equally as useless to the average bee-keeper. 2. Yes.—EMERSON T. ABBOTT.

Simplify present utensils so as to have fewer frail pieces. A number of little, frail pieces to each hive is certainly annoying. A better-shaped queen-cell protector.—MRS. J. N. HEATER.

I would not know where to begin to make improvements in apiarian fixtures. Somebody may be able, sometime, to make some improvements, but it seems to me that what we have are about good enough.—M. MAHIN.

1. All along the line. 2. Nothing is good enough as long as it can be improved. Tackle that which you think needs improving the most, and of which you have some clear ideas for betterment.—C. H. DIBBERN.

Possibly no one great thing shows its need, but here and there little things that, put together, make an important whole. For instance, a tool to readily and easily take out the dummy from a dovetail hive.—C. C. MILLER.

Along the line of apiarists. All we need to-day to make the bees of the world pay better is *good* apiarists. The tools and fixtures of the present, as a rule, are far in advance of the manipulators.—MRS. JENNIE ATCHLEY.

The field of apiarian invention is pretty well filled. There might be still room for fixtures and modes of manipulation for prevention of swarming, and for automatic hivers, etc., also controlling fertilization.—J. P. H. BROWN.

There is probably no such thing as *stand-still* in the field of improvement. Probably we must either go forward or go back. One thing should be taken into consideration by those interested in invention along this "bee-line"—the time has arrived when *bee-men* are quick to detect the practical from the impractical, and it will be useless in the future to attempt to introduce impractical implements. This space is too straightened to give room for suggestions.—G. W. DEMAREE.

1. Well, I should think in the line of hivers and non-swarmers, if any one wants to use them. 2. Most other utensils are good enough until we can get something better, and no one can tell whether they can be improved so well as a born inventor.—R. L. TAYLOR.

If I knew just what was needed, I would go to work to supply it myself. However, we need better honey and wax extractors, smokers, foundation fasteners, bee-veils, automatic swarmers, etc. I know of nothing that is perfect, or "good enough."—JAMES A. GREEN.

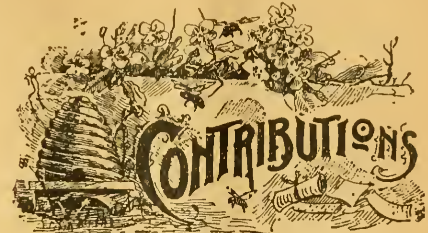
Try your hand at hive-covers. I have not seen the one that suits me yet; and also please hunt us up a little better and more convenient veil than we now have. Extractors, honey-hives and smokers, are pretty good, but there is room for some improvement yet.—S. I. FREEBORN.

There is room for considerable improvement in nearly all our fixtures. I, for one, am interested in the self-hiving problem, and think it will yet be a success, when the right inventor takes hold of it. Then, how about our "bee-escapes?" They are fairly a succcess; but—— !—WILL M. BARNUM.

Much depends. I find that the utensils now in common use are good enough for me. Invention in this line is about played out, so far as practical beneficial results are concerned. Improve what we now have, should be the rule, rather than to attempt to create an "era" by getting up new ones.—J. E. POND.

We need a smoker that never goes out unless put out. We need an uncapping-machine run by steam or foot-power, that will do good work on a crooked comb. We need a non-swarmer that doesn't swarm. Or an automatic swarm-catcher that will work whether a fellow is watching it or not.—EUGENE SECOR.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.



Selling Extracted Honey — Several Ways of Doing It.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

I am asked by a subscriber to the AMERICAN BEE JOURNAL, to give my plans of selling extracted honey.

First, we have our home trade, which is of two-fold nature—that which comes to the door, bringing pails, etc., and taking away the number of pounds called for. If this were only large enough to take all that could be produced, the bee-keeper might be perfectly happy when thinking along the line of disposing of his product; but as this is not often the case, we next take a sample and go around among our more distant neighbors, leaving a sauce-dish full at every house, and informing them that we shall be around in a couple of days or so with the same kind of honey for sale, giving the price that will be asked for it.

Where the crop is not large, the whole can be disposed of in the above two ways, especially if we feel disposed to trade our honey for butter, eggs, wheat, oats, etc., which can be used in our families, or readily converted into cash. I find people much more ready to exchange their products for honey than they are to pay cash for it. Even the man who works for me is much more ready to exchange his day's work for honey than he is to pay me the price of a day's work in money. There seems to be a certain desire, with most people, to keep money after it is once obtained, which is so strong that they will often go without that which costs money, while an exchange can be readily accomplished with no money in view.

Second, we have our "store trade," by which I mean the leaving of honey in glass fruit-jars, honey-tumblers, and the different pails suitable for retail purposes, at the stores in our vicinity, to be sold on commission, or to pay for the goods we purchase. Here we find the exchange mania coming in again; for the store-keeper will often give a good bargain by way of trading something we want, for our honey, while we could get him to take but very little, if any, if we demanded cash for it. I cannot see the least impropriety in trading honey for boots, shoes, calico, hats, caps, or anything we must buy: for in this way we find an outlet for our product, and purchase what we must have. By carefully looking after this store trade, and being affable and pleasant, much honey can be disposed of.

Third, we have the shipping of honey to different villages and cities, to be sold on commission or for cash. As nearly all are familiar with the way this is usually done, I shall not dwell on these, but tell of a plan I have been quite successful with as far as tried. Not producing much extracted honey of late, owing to being in the queen business, I have not tested it as thoroughly as I would like to have done, but, as I said before, it has been a success so far as I have used it. It is as follows:

During my leisure days I get out boxes of white basswood or whitewood lumber, to hold a given number of pounds, the sizes usually being 5, 10, 25 and 50 pounds, basing the size of the box on the fact that 20 cubic inches will hold one pound of honey, and give a little margin to spare, so that a box containing 200 cubic inches will hold 10 pounds of well ripened honey, and leave about ¼ inch at the top unfilled.

The material for the boxes, after being gotten out, is piled up in the loft of the shop, and left till the next September before making up, when it is thoroughly kiln-dried through the excessive heat which pervades this place during the summer months. As soon as the honey begins to candy in the storage cans, this lumber is gotten down, and the desired number of boxes made. When made, the inside of the joints is coated with paraffine or beeswax, and the desired number of pounds of the partially granulated honey run in. Over the top a sheet of manilla paper is now laid, and the cover laid on top of this, when the whole is set away till candied or granulated solid, when it is ready for shipping.

Along from November to February, according to prices and my wants, I take a block of wood of suitable size and bore a hole in it, into which I put a chunk of about two ounces of this now solid honey, and a slip of paper containing printed directions how to liquefy the honey, when a little piece of section is nailed over the open end. The block of honey is then nicely wrapped up, and a tag tied on.

I then take down my gazetteer, which gives the population of every town and city in the United States, and pick out the place, or places, where I think such honey as I have will sell the best, according to population, location and manufacturing interests, when I mail the postmaster of the place I have selected, one of the little blocks, and write to him, sending terms, etc., asking him to interest himself in the matter by showing this sample to those he thinks would wish honey, as they come after their mail, giving him a certain commission on whatever he can sell.

As orders come in, take the boxes of honey, and after inspecting to see that all is right, drop on top of the honey the slip telling how to liquefy it, etc.; then put on the manilla paper as before, and nail on the cover, trimming off the paper left on the outside, with a sharp knife. The paper is put on to make this upper joint dust and dirt tight. All that is necessary to be done now is to direct and ship.

Without going into farther details, I think all can understand that here is a plan that is not only cheap as a package, method of working, etc., but brings our product to the consumer with as little middlemen agency as possible, when a market away from home has to be sought.

Borodino, N. Y.

Orange Co., Calif.— Wonderful Climate and Productions.

Written for the American Bee Journal

BY DR. E. GALLUP.

Now, Mr. Editor, as you have got me into trouble, please publish the following as answers to inquiries. I will endeavor to be as brief as possible.

I have been asked, Do you have good public schools? Do you have any churches? Do you have much sickness? What is the prevailing disease? etc.

Santa Ana has a population of about 4,500. The average daily attendance in the schools is 674 pupils. The number of teachers is 20, and their salaries are $1,600 each. The number of school houses is 4—two in the central, and one each in the east and the west end of town; besides one large hired hall and a business college. Our teachers are of the very highest grade. We have 8 or 9 churches, besides 3 hired halls. There are 17 churches within a circuit of 3 miles; also Masonic, Odd Fellows, and all other secret organizations, public library, etc.

The prevailing diseases are mostly chronic and consumptives that come here for their health from the East. The largest percentage of deaths are from consumptives that come here too late to be benefited; still, many recover and live. The prevailing disease among children is *perfect health.* Why? Because they actually can live out-doors the entire year. They have ripe fruit, either from the tree or vine the entire year, and an abundance of it. Fresh vegetables are delivered at our doors the entire year.

Children are almost without an exception perfect specimens of physical health and vigor. My little Maggie, 2½ years old, was born of a consumptive mother, who was in the last stages, contracted in Indiana, and also inherited, as her mother, two sisters and an only brother all died with the dread disease. Well, Maggie is now as perfect a specimen of health as ever was seen. She is up at 5 o'clock, and out-doors with her papa, bare-headed and bare-footed, in her night-dress, helping to feed the chickens (for her papa is a thoroughbred chicken crank). She has her pet rabbit and pet pigeon to feed.

The outside doors and windows of our house are all open night and day, with screen doors and windows to keep out flies. We use Chinese matting—no costly carpets—so we are not afraid to let in sunshine and air.

Little Maggie is on her feet about 15 hours out of every 24, for she scarcely ever takes the time to take a daylight nap. I dress her as soon as I get in from my morning chores, then light the fire and get breakfast. As soon as she is dressed she is out-doors and on the run with her two little brothers.

When she was born she weighed 7½ pounds; and when 9 months old she weighed 9 pounds. Her mother being a helpless invalid, I had sole care of the little thing almost from birth. I took her to town with me, or wherever I went. She slept out-doors under the shade of an evergreen tree in her little carriage, and took in the climate, all she could breathe. Almost every one that saw her, said to me, "You don't expect to raise that child, do you?" My reply was, "God has given her to me on purpose to raise."

What is the price of land? Understand that you can support a good-sized family here on 5 or 10 acres of land; so we charge you for the climate and throw in the land. But you can get just as much climate on a lot 50 by 150 feet as you can on 10 acres. Climate can be had from $50 to $1,000 per acre, according to location, adaptability, etc. A full bearing orange orchard costs from $500 to $1,000 per acre, but the gross receipts frequently amount to the above sum per acre.

Don't ask me what we can raise here, for the list is too long. I can tell you better what we do not raise. We don't raise our own cotton, but could. We don't raise our own bananas, but could. We don't raise our tea, coffee, rice, etc., but we are going to raise our own sugar. We raise all kinds of fruits, nuts, vegetables, grain, butter, pork, poultry, beef, mutton, wool, etc.

Our mean temperature is about 75°. Our climate is not debilitating, the nights are always cool—it is always cool in the shade, always warm in the sunshine. We have from 3 to 5 or 6 rainy days in the entire year. It is called "God's country" by us Californians; an old man's paradise, etc.

Santa Ana., Calif., Sept. 22, 1893.

[Well, Doctor, when we read the first sentence of your interesting article, we were almost tempted to feel sorry for getting you into "trouble," but after reading all you have to say in the foregoing, we were really glad that we published the former things about you and your glorious part of California. What an Eden you must be in! Why, it makes us feel just like taking the next train for your country, especially when we remember that it was 20° below zero here last winter. But we will have to be contented, and continue "to labor and to wait." Perhaps some day we may be permitted to go to your heavenly place—

"Where everlasting spring abides,
And never withering flowers."—Ed.]

* * *

Honey as Food and Medicine is just the thing so help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the Bee Journal for description and prices.

Indications of the Honey Market—Some Experiences.

Written for the American Bee Journal

BY C. W. DAYTON.

I believe if bee-keeping is worth dabbling with at all, it is worthy of our undivided attention. If after producing a crop of honey a man has not the time, interest or love for the pursuit, to load his honey into a wagon and sell it to those that would consume it, he is not the man to find out what consumers want, but he *is* the man who would shut both eyes just before the time to pull the trigger.

Like the persimmons once described in *Gleanings*, which look ripe and luscious while they are yet green, and not until they appear stale and rotten are they eatable, so is honey not at its best until it has remained in the hives long enough to become travel-stained.

In Denver, as I was filling a lunch basket for a journey in the mountains, I stepped into a grocery for a section of honey where several grades occupied one show-case. The first section the grocer took up was much travel-stained, and he said, "You don't want that one;" and he took up another unstained one. I inquired what was the fault with the first one.

"Oh," he said, "the bees have worked and fussed with it until they have spoiled it." Said I, "I think the longer bees work with honey the better it becomes, and I would rather have that section than any other one in the case."

"Yes," he answered, "I presume the *honey is* best, but our trade demands the lightest colored combs."

On leaving the store I added, "I have often noticed the same of those who come for honey, and have wondered why they do not prefer butter to be white instead of yellow, as well."

On the opposite page from the foregoing reference to *Gleanings*, it says: "We, as bee-keepers, may know better than any others what honey *is*, and which is the best, but unless we supply the consumer we cannot tell how to grade or classify it to suit the trade ......but the man who is a dealer knows it in exact proportion to his experience......The meaning of the terms of trade, 'fancy,' 'choice,' etc., may be different from what we understand them to be, and the taste of the public may be different from ours. It is the commission man who understands these things best."

Very truly, the dealer "understands" *exactly* "in proportion to his experience," but he sadly lacks experience, both fore and aft, and the intervening space is so limited there is scarcely room for the terms "fancy," "choice," etc. If these terms were changed into Latin, they would serve him still better.

It only requires one or two short lessons to teach a man that persimmons should look spoiled before they are fit to eat, because it is not pleasant to have one's mouth and throat so puckered up that he cannot swallow what his mouth contains, or, if he attempts its ejection, it will find its way into his shirt bosom.

In the case of honey there is no trouble. Ripe honey is relished more and more as it is eaten and the appetite for the flavor increases. When the honey is unripe, or the flavor impaired, it is still palatable, and can easily be swallowed, but the wishes for more mouthfuls become less and less imperceptibly. After awhile it is not brought from the pantry at all. Finally, to make room for other things, it is doomed to a shelf in the cellar, and when the honeyman comes around next year they tell him, "We don't any of us like honey, and have a quantity on hand which was obtained last year."

One taste is deceptive. Except by eating of honey for several meals is the flavor found to be tiresome. No dealer tests it in that way.

The flavor of persimmons, or any other fruit, is better or worse, as Nature decides to make it, and cannot easily be altered by man, just as there is more or less water in the nectar the bees find in the flowers; but the removal of honey from the hives before the water is expelled, is an artificial proceeding within the easy control of the bee-keeper. The bee-keeper not only has taste as well as the dealer, but may consider how and when it was taken from the care of the bees, where stored, etc.

In the fall of 1886, I took a load of 700 pounds of extracted and 300 pounds of comb honey to sell in Hampton, Franklin county, Iowa. The market was bare of all honey except a small quantity in the comb. After a canvass of the seven or eight groceries, it was found that 250 pounds of comb and six one-pound jars of extracted abundantly supplied the dealers.

At last a groceryman, to whom I was trying to sell more of the extracted, broke out, "What do you '*raise*' that stuff for, any way?" "For the money it brings," was the reply.

"Well, you can't sell any of it in *this* town. Nobody wants it at *any* price.

You'll have to haul it home again." Such information might be discouraging when I had come with the intention of finding sale for a wagon load.

About 9 o'clock I had finished with the dealers, and hitched my horses to one of the liveliest business corners. In about five minutes a farmer came along and asked what was on my wagon, if it was for sale, etc., and from this time I was constantly busy with weighing and making change, so that before sundown I started for home with every keg and can empty. In this instance, the dealers "knew in exact proportion to their experience."

The day I arrived in Los Angeles, I went into a commission house where a bee-keeper was disposing of eight cans of extracted honey, and they were testing it by licking their lead pencils after dipping them in the screw-caps. Three cans contained very thin honey, and in five it was very thick. When the merchant inquired the reason for this difference, the bee-keeper said he could not tell, as they were extracted right along day after day alike.

"Well," says the merchant, "I guess the thin is just as good honey," and he took them all at one price. There were also several crates of sections which, being much travel-stained and covered with propolis, the merchant glanced at and said he did not want, even at the low price of 7 cents a pound. This bee-keeper had 150 colonies of bees, had been in the business several years, but this season his orchard came into bearing, and the bees were neglected. I wished to ask if he had any green grapes or decayed peaches to sell.

Did the reader never extract honey one day when it would pile up as it ran from the extractor, and the next day it splashed like water? Furthermore, there are whole honey seasons of such honey. In 1889 I knew colonies to gather from basswood 60 to 70 pounds by actual weight in seven days, and when it was evaporated to the consistency of ripe honey, there was not enough for their winter stores.

At Longmont, Colo., about the middle of the honey harvest, I inquired at a leading grocery for new honey, and was handed a pail containing a piece of comb honey which was granulated solid, and which was surrounded by new extracted honey. On examination, I remarked that the liquid was new, but the comb in it had been broken from a section left over from last year. At this he grew vehement, and offered to bet $20 that all of it was new.

When I told him that it was too early in the season for honey to be sealed, and explained the nature of granulation, and said I would sooner bet my "whole pile" than anything less, he concluded that I knew what I was talking about. Then I went out on the street and a laborer told me he had once obtained some real honey, but of late he thought that bee-keepers stirred sugar into it!

I suppose the producer of this pailful thought that if he hastened it upon the market before other bee-keepers brought their ripe new honey, it would be as forced to sell as the people were crowded off the Brooklyn bridge. In the language of Rambler, such honey occupies the whole railroad, side-tracks and all; and as to moving, there is a smash-up ahead with the wrecking crew on a strike.

Pasadena, Calif.

(Concluded next week.)

How to Protect Colonies of Bees from Ants.

Written for the American Bee Journal

BY E. S. LOVESY.

Many good points have been brought out through the agitation of this ant question. They have come as a new enemy or pest to the bee-keepers in some localities within the last two or three years, hence some of our bee-keepers lost many of their bees before they awoke to the fact that the ants were injuring their bees.

Out of about 200 bee-keepers that I have visited this summer, I have found those ants in from 20 to 25 places, and in a few places they were very troublesome. I visited one man three times, and not until the ants had destroyed more than half of his bees, could I convince him of the havoc that they were making; but he is now keeping them off as I have, and he says that the bees are getting along all right.

While I have not been able to find anything yet that will exterminate them entirely, I have been successful in keeping them off of the hives by making stands to set the hives on. If the ground is nearly level, I cut six posts about a foot long, with three cross pieces and two long scantling for each stand. Then I paint a 2-inch ring around each post. I first used tar, but it dries too quickly. Now, after many experiments, after putting on two or three coats of tar to form a body, I use a mixture of about 3/10 of lard, 3/10 axle grease, 3/10 tar, and a little over 1/10 white lead. The ants won't go over this. It will keep off a million as easy as one. After it has had two or three coats it will keep them off five or six weeks, sometimes, without renewing. If it is very hot, and there is little or no shade, add a little more tar and white lead.

Since I have used this mixture, I have not lost any bees by ants, except once in awhile one that they may catch on the ground. If they once get hold of a bee, they never let go while there is any life left in the bee. I have seen bees spin around like a top when the ants take hold of them. You would hardly believe the speed at which they turn unless you saw them.

We have a few red ants, also some large flying ants, but it is those little black pests that are a terror to our bees. One kind is less than ⅛ of an inch long, the other is about 3/16.

I have heard that some one wrote in one of our bee-papers some time ago, that the ants did not injure the bees, because the bees carried them off. This is a mistake. While it is true that the bee often flies off with the ant, the journey ends with the death of the bee, while the insignificant little villain that gets a free ride is ready for action wherever he may land. Some people think that the bees have a tendency to spread the ants in this way. One thing is certain, when they once get started in a hive, they soon clean out the bees, if they are left alone; and then they have a picnic carrying off the honey. Of course, each ant carries but a small load, but they usually get force enough to make short work of it.

While I still have millions of ants that I would like to dispose of at any price, I do not think that I have over 1/10 as many as I had last year. I have tried a great many things that I have heard of, or seen in print, such as poisoning, etc. I have caught a great many with honey and water. The flies also like it, and crowd in the pail, but the ants being of a greedy and pugnacious nature, as they run around the pail or tin bucket as they come in contact with the flies, they never miss a chance to make a dash at it. They miss the fly and their hold at the same time, and so fall in. I have caught a solid ½-inch deep of ants this way, also many yellow jackets and moths.

There has been a great deal of complaint this year, by some of our bee-keepers, of the destruction caused by the yellow jackets or wasps, and also of the moth; neither of those pests can do much harm if all the colonies of bees are strong, especially if the entrance to the hive is closed up to about ¾ of an inch.

I had a weak colony the first of August that were attacked by the yellow jackets. I saw that they were getting the best of the fight. When I examined the bees I found they had a laying worker, but no queen. I shook them into another hive, then the yellow jackets tried their best to get into the other hives, but without success. The few that did succeed in getting in were soon killed and carried out again.

But to return to the ants: I have had the best results with boiling water and burning with coal-oil. Slaked lime and coal ashes are good to spread around to keep the ants away from the vicinity of the hives.

While we have some ants here in Utah, our Friend Dayton, of California, (see page 112) "knocks us out" entirely, both for size and quantity. We gracefully surrender our claim, and wish Mr. Dayton success in his efforts to exterminate them.

Salt Lake City, Utah.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Oct. 18-20.—Missouri, at Pertle Springs, Mo.
P. Baldwin, Sec., Independence, Mo.

Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

Dec. 19, 20.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Dr. C. C. Miller....Marengo, Ills.
Vice-Pres.—J. E. Crane.......Middlebury, Vt.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

Well Pleased.—I am well pleased with the Bee Journal, and do not see how any beginner could get along with bees without it.—J. T. Brown, Sumas, Wash.

OUR
LETTER BOX
REPORTS PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

"Better Late than Never."

October 1st was the best honey-day of the season; gathered from asters. The day was warm and moist, and bees dropped at the entrance like shot.

MRS. L. HARRISON.

Peoria, Ills., Oct. 3, 1893.

Bees Did Fairly Well.

Bees have done fairly well this season, considering the drouth. We had no rain from the first of July to Sept. 20th, when we got nearly 2 inches by the rain-guage.

JESSE BRADY.

Little Rock, Ills., Sept. 23, 1893.

Indian Apiarian Names.

Here are two more names of the honey-bee, showing that the old Indians had some correct ideas about it:

The Algonquin tribe call the honey-bee, *amo;* the honey, *amo-sinzipakwat* (bee-sugar); the wax, *amo-pimite* (bee-grease); the hive, *amo-asason* (bee-nest); and the working-bees, *amonsak-sanzipakwatokedjik* (minor bees making sugar).

The Iroquois Indians call the honey-bee, *Tsinakontakwane;* the honey, *Tsinakontakwane-otsiketa* (bee-sugar). That's all I know about the Iroquois.

MONTREAL SUBSCRIBER.

Montreal, Canada.

The Original Bean-Honey Man.

I saw an item in the BEE JOURNAL about Lima bean honey, and I suppose I am the man who first put such honey on the market. Last year I sold several tons, and this year also. I find ready sale for it, and it is no humbug. I have some of it in Chicago, at the World's Fair—perhaps you have seen it, and also my bee-hive. I have been in the bee-business for over 30 years. I have sold all of my honey off except some samples, and it seems that none of the bee-men in Southern California sent any honey to the Fair but myself. If they all would have turned out as I have, we would not have been behind other States.

J. ARCHER.

New Jerusalem, Calif., Sept. 20, 1893.

Never Lost Any in Wintering.

I notice a great deal in the BEE JOURNAL about wintering bees. I commenced handling bees four years ago, starting with one colony, increasing slowly, and last winter I had 8 colonies. It was about the coldest winter ever known in the valley of Virginia, the mercury below zero for days at a time, and ice formed 12 to 18 inches thick on the ponds and streams. My bees came through in fine condition, and have averaged, so far, 40 pounds of comb honey to the colony, with fine prospects for a good fall crop. I always leave them on the summer stands, with no protection. I use no cloths or cushions; but leave the supers on. In the spring I remove the supers, shut the bees below with oil-cloth, until time to put the sections on. In my four years' experience I have never lost a colony.

F. T. BROOKE.

Brookewood, Va., Sept. 9, 1893.

Good Year and Bees Did Well.

This has been a good year for us, and the bees did well. The honey was nearly all No. 1 or fancy. We have over 50 colonies, but kept no account of the honey secured, for it sold nearly as fast as taken from the hives to the local trade, at 12½ cents per one-pound sections.

We like the BEE JOURNAL very much, and think that every bee-keeper should have it.

MRS. L. M. SMITH.

Canandaigua, N. Y., Sept. 25, 1893.

White Clover the Finest in Years.

We can't keep house without the AMERICAN BEE JOURNAL, although as yet we have not found bee-keeping very profitable. The severe winter killed most of the bees around here, mine with the others. The white clover here was the finest we have had in a number of years, and but few bees to harvest the honey. A long-continued drouth has spoiled the fall crop. The late swarms here will have to be fed, and fed enough to carry them through the winter.

ALPHA BARRETTE.

Prairie du Chien, Wis.. Sept. 15, 1893.

Small Crop—Experience with Queens.

I said that I would report as to our honey-flow for 1893. It is short, averaging about 18 pounds of comb honey per colony. On page 151, Mr. J. W. Clark, of Clarksburg, Mo., writing on July 20th, says that he has taken no honey, and that there is none on the market. There is also none on the market in this place. Bees in this locality have done very little swarming this year; out of 10 colonies we had one swarm. Last year we had 5 swarms out of 7 colonies.

Now something about queens: I sent for an Italian queen on June 4th, and got her after some four weeks waiting. When she came, I took her to a colony to introduce. I took off the paper cover and the tin slip from the end of the cage, laid the cage wire-cloth down on the frames, and closed the hive. In a few days after that I went to see if she was all right. On opening the hive I found that she was liberated. I tried to find her on the frames, but could not. I looked in the bottom of the hive, and there I found her dead. Resolving, however, to try again, I sent for another queen, and received her in a few days. This time I was very careful. Taking five frames of hatching brood from the other hives, I put the queen and the 6 or 7 bees that were in the cage with her, on the brood; the brood hatching all the time, by night there was a nice cluster of young bees. I kept them in the house a few days until it was a nice little colony, then I put them out in the apiary with the entrance only a little ways open, to keep robbers out. The queen commenced laying in a few days afterward. The queen is a very nice yellow one, and her bees are also very yellow. I have reared one queen from her, and she proves to be very nice.

Frank N. Blank.

Prairie Home, Mo., Sept. 13, 1893.

Convention Notices.

ILLINOIS.—The annual meeting of the Northern Illinois Bee-Keepers' Association will be held in the Supervisor's Room of the Court House, in Rockford, Ills., on December 19 and 20, 1893. A good programme is being prepared and all are cordially invited.

New Milford, Ills. B. Kennedy, Sec.

MISSOURI.—The 8th semi-annual convention of the Missouri State Bee-Keepers' Association will be held at Pertle Springs (near Warrensburg) Mo., on Oct. 18, 19 and 20, 1893. It is desirable that as many as can possibly make arrangements will be present, in order that the prosperity of the Association shall not suffer in these poor seasons, for want of personal support. The Executive Committee will prepare a program that will give all an opportunity of expressing themselves on the most important subjects now occupying the attention of the bee-keepers of the country. Arrangements have been made with the M. P. Ry. Co., for 1⅓ fare, certificate plan. Accomodations at the Pertle Springs Hotel will be reasonable. Bee-keepers from any State and every State will be cordially welcomed. P. Baldwin, Sec.

Independence, Mo.

"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the Bee Journal for one year, for $1.70.

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, at its last meeting, and, so far as possible, quotations are made according to these rules:

Fancy.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

CHICAGO. Ill.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, 5@7c. Beeswax slow at 20c.

Sept. 14, J. A. L.

CHICAGO, Ill., Sept. 15.—The receipts of comb honey have not been in excess of the demand up to this date. We have yet very little surplus. Prices remain at 15@16c. for the very best grades. Discolored combs and the darker grades generally are slow of sale at about 14c. Our sales, however, are chiefly at 15c. We consider this about the best season of the year for shipping and selling comb honey. It stands transportation better than it will when the cold weather comes, and people buy it in larger quantities than they do later in the fall. Extracted is nominal, some sales being made all the time at prices ranging from 6@7c., with some other dark goods a little lower. Beeswax salable at 22c. We would advise those having honey ready to ship, to send it forward during this month, or early next. R. A. B. & Co.

St. PAUL & MINNEAPOLIS, Minn., Sept 12.—The receipts of honey are quite liberal, especially the last two weeks. A great deal of Wisconsin comb honey has arrived and is in very good condition; this is being sold at 13½ @16c.; the lower price being for darker honey, which, however, does not meet with an active inquiry. California 1-lb. sections selling at 14@16c. Two or three carloads of extracted honey have recently arrived, and sold at 6½@7c., there being little or no difference between white and amber as to price obtained in this market. The best season for comb honey is now coming on. S. & A.

CINCINNATI, O., Sept. 18.—Demand is slow for extracted honey with plentiful arrivals. It brings 5@8c. Choice comb honey is in good demand at 15@16c. for best white. Arrivals are good.

Beeswax is in slow demand with large arrivals at 20@23c. a pound for good to choice yellow C. F. M. & S.

ESTABLISHED IN 1861
THE AMERICAN BEE JOURNAL
OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., OCT. 19, 1893. NO. 16.

EDITORIAL BUZZINGS

Bro. S. F. Trego, of Swedona, Ills., was married on Oct. 4th. The fortunate bride's name was Miss Emma Nimrich, of Cable, Ills. We offer our very best wishes to the happy couple, and trust that their new "hive" may ever be filled with the "honey" of contentment and plenty. We haven't the least doubt that the new "queen" will prove all that Bro. Trego's heart could wish for—a real *golden* queen; that is, worth her weight in gold.

* * *

The Atchley Family—and that means 10 in all—are shown in a beautiful full-page engraving in *Gleanings* for Oct. 1st. There are Bro. and Sister Atchley, and the eight children, viz.: Willie, Charlie, Leah, Ives, Rosa, Amanda, Napoleon, and the two-months' baby—Thomas York Atchley. We haven't heard whether or not that "latest edition" is intended as a compliment to *Thomas* G. Newman and ourselves; but if it is, we fear the young man will never have any reason to be proud of the middle section of his name. However, we'll try hard not to disgrace our little namesake, if such it be.

Accompanying the family picture is a description of it and "the largest queen-rearing establishment in the world," where 5,000 queen-bees have been reared this year.

Bro. W. A. Pryal, of North Temescal, Calif., has recently suffered a very great bereavement in the death of a lovely sister, Lily, just past her 20th year. She died on Sept. 26th, after about a month's illness of typhoid fever, with complications of bronchitis and pneumonia, and finally pleurisy. Miss Lily was an excellent teacher in the public schools, having done work in the school-room worthy of a veteran. She was not only a favorite in school, but was dearly beloved by all who met her. Like all the Pryal family, she had been reared in the Christian faith, which she lived up to in an exemplary manner; and her death showed how a person could suffer courageously and uncomplainingly.

Our sincerest sympathy goes out to Bro. Pryal and all the bereaved family, in their sad affliction; for,

'Tis hard to part with loved ones—
  With those we hold most dear;
But some day we shall meet them,
  Where's not a pain or tear.

* * *

North American Convention.—Well, the grandest convention of the North American Bee-Keepers' Association ever held, is now a thing of the past, but it will not soon be forgotten by any of those who were fortunate enough to be present. We had looked forward to an exceedingly enjoyable time, and were not disappointed in the least, but, rather, were delighted beyond expression, at the thoroughly happy time everybody seemed to be having. The greatest harmony and good feeling prevailed during every session, and all, for the time being, appeared to consider themselves members of one big, "sweet" family.

We expect within a week or two to begin

publishing the full report in the BEE JOURNAL, and then all of our readers will learn just what was done; but thinking that those who could not be present would like to know just a little about it in advance of the regular report, we thought we would offer a few comments this week.

In the first place, there were over 225 persons present; more than 50 of them were ladies, one of whom, at least, according to Dr. Miller, was "nice." She was from Maine—the only one present from that State. *We* thought *all* the ladies there were "nice," but then of course may be in this case *we* "don't know," instead of Dr. Miller.

The happiest bee-man in all the convention seemed to be Bro. Aikin from Colorado. He had come on a little in advance of the meeting, skipped off to Kentucky—the State noted for its fine horses and charming women—and returned to the convention with his bride. So there were at least two Aikin (aching) hearts there that beat as a very happy *one.* (Bro. and Sister Aikin can skip this paragraph.)

The next apparently most satisfied member was Dr. Mason. We'll not attempt to describe the good time that he seemed to be having. We were glad Mrs. Mason came along to look after the Doctor. He'll *stand* watching—yes, and occasionally he sat watching—the proceedings.

Bro. Newman, although scarcely able to be present, was there, and plead most earnestly for the "Langstroth Fund." He described Father L.'s pitiful condition most sympathetically, and urged the convention to do something handsome for American Apiculture's Grand Old Man, by way of a collection, and $50 was quickly secured.

Bro. Holtermann, editor of the *Canadian Bee Journal*, was constantly at work taking the report of the proceedings.

Bro. Benton was kept pretty busy taking the names of members, and reading the essays of absentees, as well as taking notes of the meeting.

Master Ralph Benton was also there with his bewitching curls; and Huber Root was present, each of whom paid their membership fee of $1.00 like a little man. Several other children were there also, among them being Louis Dadant, son of Bro. C. P. Dadant, and also Miss Zoe Benton.

Prof. Cook was present the first day, though it took a good deal of effort to take him from his college work in Michigan. We wouldn't have missed seeing him for a good deal, as next month he goes permanently to California, and then there would be no knowing when we, or any one else in this region, would have the opportunity of meeting him. California's great gain, and also the Professor's, we feel will be our irreparable loss. But then, the good Professor promised to let us hear from him frequently, so we presume we shall have to let him go, though it doesn't seem right.

Mr. J. W. Pender, a representative of a large bee-keepers' society in New South Wales, Australia, honored the convention with his presence, and delivered a most pleasing address. He was afterward elected an honorary member.

Dr. Miller—well, you all know him. He's just the same as ever—always happy, lively and witty. He gave two readings that just kept the convention roaring with laughter. We shouldn't wonder if the hotel folks found a good supply of buttons on the floor after the convention left.

St. Joseph, Mo., was selected as the place for holding the next meeting, in 1894; and Bro. E. T. Abbott, who lives there, was elected President; for Vice-President, Bro. O. L. Hershiser, of New York; and Bro. Benton and the writer were respectively re-elected Secretary and Treasurer.

Bro. W. R. Graham and Mrs. Sallie E. Sherman, both of Texas, were there, as well as one or two from California and other far-away States. It was indeed a very representative gathering.

Professors C. V. Riley and H. W. Wiley were in attendance part of the time, both of whom spoke briefly but very entertainingly. When Prof. Wiley had finished his address, Pres. Miller introduced him to Bro. Newman, which had the appearance of a complete reconciliation, and final cessation of hostilities. This little scene caused a wonderful demonstration of enthusiasm on the part of the members of the convention, and for some moments there was great applause.

After holding three sessions each day, on Wednesday and Thursday, the convention adjourned to gather around the Honey Exhibit on the World's Fair Grounds, at 12 o'clock on Friday. And thus ended perhaps the best, and certainly the largest and most glorious, meeting of bee-keepers upon this continent.

Nebraska State Fair Notes.—The apiarian department this year was the "greatest eye-opener on the Fair Grounds." Bro. E. Whitcomb, who has had charge of the display for the past eight years, was again at the head, which assured success from the start. The building containing the apiarian exhibits has been enlarged, and now consists of four moderate sized wings, each being provided with a table running along the wall, protected by a railing, shelving and wall space. The center of the building contains a large open space in which a great pyramid of shelving reaches almost to the ceiling. The table space and pyramid hold honey and honey products, together with colonies of bees, apiarian implements, beeswax in all forms of manufacture, while the wall space is a veritable herbarium of honey-plants.

Mr. E. Kretchmer, of Iowa, had a large display of honey and implements. He showed a unique sign which reads: "NEBRASKA STATE FAIR." The sign was commenced by human hands, and the bees did the rest. It is simply a big stencil-plate made of board, the letters being filled in neatly by the bees with comb honey, and the whole is framed and enclosed behind glass. The whole thing was then placed in the exhibit where all persons entering the hall could read in letters of temptingly delicious honey—"Nebraska State Fair." Mr. K. had 149 samples of bee-supplies in the exhibit; also Italian bees. He also showed a case of 28 samples of beeswax which he has been 10 years in collecting. They represent 15 foreign countries and 13 States of the United States. The object is to show the quality of the grain of the wax, which, in this collection, stands in favor of Nebraska and Iowa samples.

Thos. Johnson, of Iowa, had 12 colonies of bees representing 5 varieties—Albino, Golden Italian, Carniolan and Cyprian and Holy Land; also a display of honey-plants from Guthrie county, Iowa, of about 100 kinds, which constitute two-thirds of the honey-plants in that county. Mr. Johnson captured the first premium on bees.

August Davidson, of Nebraska, exhibited a large herbarium of honey-plants, extracted and comb honey, wax, 3 observatory hives with bees—blacks, pure Italians and hybrids. He also showed an ancient drink, metheglin, on which he took first premium.

Messrs. Stilson & Sons exhibited bee-supplies and honey. They also had a 3-quart jar of pure fruit-blossom honey, and an uncapping box of their own invention, which is said to be a very handy and complete arrangement. They took first premium on their display of apiarian supplies.

Mrs. E. Whitcomb exhibited a beautiful display of beeswax, consisting of lettering, a wreath, cross, robe and flowers, ears of corn, two statues, "The Angel at Prayer," and "The Compulsory Prayer," the latter being copies of the famous statues, all the pieces being made of beeswax, which was so perfect and natural in its execution that only skilled artists could guess the material to be beeswax. Mrs. W., of course, carried off the first premium on her handiwork in wax.

Many curious designs in comb honey were shown, which the bees had helped to complete. A jar was filled in the shape of a cross by the pattern being given the bees to start with.

A rare collection of foreign honey, gathered by Messrs. Whitcomb and White, contained specimens from nearly every country on the globe, including rose honey from Greece, orange honey from Italy, cleome or Rocky Mountain bee-plant honey from Colorado, Scottish heather honey, and honey from Siberia, Russia and England. All the bee-men united in declaring the foreign honey inferior to American.

Thomas Dobson showed some luscious cake and candy sweetened with honey.

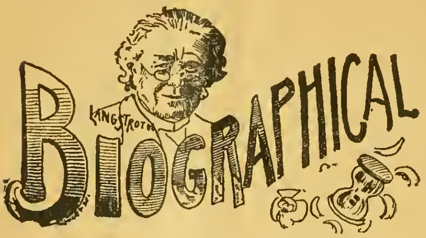
Wm. James had a fine exhibit of bees and honey. John Lee and Sam Barrett were also on hand with a display.

Chas White was awarded the first premium on his section press and foundation fastener; and also to Messrs. Stilson & Sons, for their uncapping-box and apiary wheelbarrow.

At the election of officers of the Nebraska State Bee-Keepers' Association, whose convention was held during the Fair, Mr. E. Whitcomb was re-elected President; Mrs. J. N. Heater Vice-President; and Mr. L. D. Stilson Secretary and Treasurer, for the ensuing two years.

The Nebraska bee-keepers think that they have arrangements under way whereby they will secure an experiment apiary in connection with the farm department of the State University.

The season just passed has been an exceptionally hard one for our bee-keepers in Nebraska, but the showing in this department at the State Fair was never better.



No.52.—HON.J.M.HAMBAUGH.

In order that our "album volumes" of the American Bee Journal this year may be as complete as possible, and especially contain the pictures and life sketches of those answering Queries, it is necessary to repeat the biographies of some who have before been presented in these columns within the past two or three years. But that will not make this department any the less interesting, as in cases where there is a seemingly needless repetition, the characters are so interesting that no apology for their oft-appearing need be given. Among those thus presented have been Dr. Mason, G. M. Doolittle, Hon. Geo. E. Hilton, Hon. R. L. Taylor, and others—all grand, good men, whose biographies will ever bear repeating and their good examples all worthy of imitation.

This week, then, we call attention to another, the Hon. J. M. Hambaugh, the wide-awake President of the Illinois Bee-Keepers' Association, and an ex-member of the Legislature of his native State. He has ever championed measures looking toward the advancement of the interest of bee-keepers, as well as the State at large. In him we have found a true friend, and are now glad to have the opportunity to express our respect and esteem for him.

The subjoined account of his life, which was furnished by "A Friend," will be found entertaining, and, no doubt, very helpful :

Hon. Jos. M. Hambaugh was born in Versailles,, Brown county, Ills., on July 16, 1846, and with the exception of about one year spent in Keokuk, Iowa, and two years in Mt. Sterling, Ills., he has ever since resided on the old farm where his eyes first opened to the light of day. Part of this farm was pre-empted by his father, Hon. Stephen D. Hambaugh, in 1828, he being one of the first settlers of the country.

Jos. M. is the youngest of seven children, and has two brothers and one sister still living. He received only a common-school education, but has added much to his stock of knowledge by judicious reading and study since leaving school.

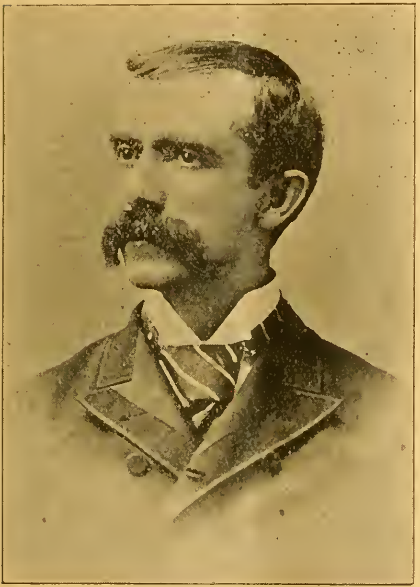
Although his father before him kept bees, and he may have inherited a liking for the little insect and the product of the hive, it was not until the year 1881 that his interest in progressive apiculture began to develop in earnest. About this time, as a former writer has put it, "a little circumstance led him to an investigation, and that investigation was a ray of light shed upon a new field of labor, grand and beautiful beyond description.

"It was in the Fall of 1881, that, chancing to step into the grocery-house of J. A. Givins, in Mt. Sterling, he discovered a huge pyramid of beautiful white clover honey, put up in one and two pound sections, and upon inquiry he found they had been produced by a citizen of his own county, by the name of Dunbar. This was an eye-opener to him. He immediately sought an interview with Mr. Dunbar, and learned something of his methods, but soon found that in order to be a successful honey-producer one must study the art.

"About this time he read A. I. Root's advertisement in an agricultural paper, and sent for his catalogue of bee-supplies, and this led to a purchase of his "A, B, C in Bee-Culture," followed by Cook's "Manual of the Apiary," Dzierzon's "Rational Bee-Keeping," and many other works of note, and it was after a careful perusal of these works that he ventured on modern improved methods.

"The following Spring found him transferring his bees from the box-hives to 8-frame hives of an original simplicity pattern. This proved quite an expensive experiment to him. That season the increase was from 8 colonies, spring count, to about 21 colonies, and the spring of 1893 found him with 17 colonies, two of which sent out no swarms, and from the remaining 15 colonies he hived 43 swarms of bees, coming through the season with a grand total of 60 colonies of bees, and about 200 pounds of honey.

"Subsequent investigations, and this little piece of experience, led him to the adoption of a hive of larger capacity, and the following spring found him equipped with buzz-saws and other appropriate machinery for accurate work, and a large lot of 10-frame simplicity hives, having frames 17⅝ by 9⅛; and now came an interesting feature in his experience: It was found that the top-bars of the frames in the old 8-frame hives were all too long, and had to be trimmed ere they would go into the new hives. Each and every colony had to be carried into the honey-room, and as they were transferred, every comb, bees and all, had to be inverted into a frame-work prepared for this purpose, and the ends clipped with a tenon saw, in order to make a uniform frame throughout the yard.



JOS. M. HAMBAUGH.

"Mr. Hambaugh now began his work as an apiarist in earnest, but as a comb-honey producer he could never solve the increase problem, and not until frequent communications and visits to the Dadants, and noting their success as extracted-honey producers, did he become convinced of the feasibility of their ideas and plans, which he still adheres to, believing them to be the most economical, simple, and, when strictly followed, sure to be rewarded with a greater degree of success, financially, than any other method extant.

"Mr. Hambaugh handles about an equal number of simplicity and Dadant hives, and he gives a decided preference to the Dadant hive for extracting purposes. His success as a honey-producer is well known throughout the country."

Mr. Hambaugh was married on Oct. 26, 1869, to Miss Josephine Shamp, of Edina, Knox Co., Mo., who died June 16, 1872, leaving an infant but six hours old. A sincere affection existed between himself and wife, and her untimely taking off was a severe blow, from which he was long in rallying.

On Feb. 29, 1879, he was married, for the second time, to Miss Frances A. Cullinan, of Mt. Sterling, Ills. Five children have blessed this union, and all are living but one infant.

Mr. H. follows farming and stock-raising in connection with bee-keeping, and lately has added dairying; so it would seem that he is doing his share toward making this land of ours to "flow with milk and honey."

He has always taken an active part in society work, and is a member of the North American Bee-Keepers' Association; the Bee-Keepers' Union; and has been Secretary, and is now President of the Illinois State Bee-Keepers' Association. In the latter capacity he was appointed, in connection with its Secretary, Mr. Jas. A. Stone, to superintend the Illinois apiarian exhibit at the Columbian Exposition; and as to how well he has performed his duties while in this position, let the thousands testify, who have witnessed the unique Illinois apiarian exhibit at the great World's Fair.

In May, 1890, Mr. Hambaugh was chosen to represent his District in the Legislature. During his term he labored incessantly not only for the rights and privileges of apiarists, but for agriculturists and horticulturists as well—in fact, for the general weal—and did more to dispel the gross ignorance that blinds a large per cent. of the latter class to their own interests than any man who ever went from this District—or, perhaps, any District of his State. Among other important measures, which space forbids me to mention, he originated the "Spraying Bill," which was calculated to protect apiarists from having their bees poisoned by the injudicious spraying of fruit-trees. This bill passed the House, but there being no "Hambaugh" in the Senate to work for its passage, it was laid upon the table by that honorable body, and remains "tabled" still, so far as anyone knows. He also secured an appropriation for the annual publication of the Report of the Illinois State Bee-Keepers' Association. In this we have no precedent, I believe, in the United States. His record while in the Legislature, will stand as a bright monument to his memory in years to come, and may be the means of sounding his name and praises in other lands than ours.

Mr. Hambaugh is an occasional contributor to the different bee-periodicals, in which *Gleanings* and the AMERICAN BEE JOURNAL have been generally favored. It is to be regretted that his numerous cares will not permit him to write more, but he has been *working*, and the bee-keeping fraternity may hear from him more frequently hereafter.

Politically—and, by the way, our friend *is* something of a politician—he affiliates with the Democratic party, but is at heart a "prohibitionist" in the strictest sense of the term. He does not use tobacco in any form, is strictly moral in his habits, and earnestly devoted to his wife and children, and to his home.

A FRIEND.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Old Foundation—Partial Sections.

I read in *Gleanings* of a man in Pennsylvania having old foundation, and wishing to know how to make it fit for use. Is not foundation placed in sections that are not used, good to put on next season? I have quite a good many with full sheets, some partly drawn, and some untouched. I also have several unfilled sections that I intend extracting, and placing on next season, as I read they can be used that way. If they can, I should think foundation could also. Is it necessary to put the sections back on the hive to have them cleaned, after extracting? C. N. WHALING.

Joy, N. Y.

ANSWER.—Among those who have tried it, there is probably no difference of opinion as to the value of foundation that has been on the hive the previous year, and left untouched by the bees. While the bees will generally use it, they will not use it so readily as fresh foundation.

As to sections partly drawn out and left over to the next season, there is a wide difference of opinion. Some think they are only fit to be melted up. Others go to the other extreme, and think they are worth very much more than sections filled with fresh foundation. We are somewhat inclined to the latter view, and if the sections are clean we would not hesitate to use them over again. But we should not want to put on such sections without knowing that they had been thoroughly cleaned out *by the bees.* For if a last year's section should be put on this year right in the busy storing time, and particles of granulated honey should be present, it is possible the bees would go on filling up with fresh honey without cleaning out the old granulated honey, and thus the new would be injured by the old.

No, it is not necessary that the sections should be put *on the hive* to be cleaned out after extracting, but it is decidedly necessary that they be put somewhere for the bees to clean out. They'll make surer work of it off the hive than on. Put your supers of sections somewhere where the bees can visit them, protecting them from rain, and allow very small entrances so that only two or three bees can pass at a time. If you allow too free access, the bees will tear the combs to pieces.

Bees Opening Brood-Cells.

On page 301, in answer to my query regarding opening brood-cells, you ask if I am "poking fun at you." Emphatically, no! I asked the question in all earnestness. No, there is no "possible mistake"—it is of daily occurrence. I have an observatory hive in which I find the operation going on daily. If I were not an amateur in the profession, I should take the ground that the bees know what larvæ have been provided sufficient food when sealed over, and open and feed those that have run short of supplies. I have been in hopes *some* of the professionals could or would throw some light on this question.

H. C. FINNEY.

Council Grove, Kans.

ANSWER.—We can only say that it is something new to us to hear of bees uncapping brood to do over the work that was insufficiently done; but as you say there is no possible mistake, we have no desire to dispute your word. If a colony of your bees could be seen in active operation among the exhibits at the World's Fair, we are very sure it would secure the attention of all visiting bee-keepers.

Sawdust Cushions—Feeding Bees, Etc.

My 25 colonies returned 30 per cent. on the investment this year. The spring was late, and all summer dry, otherwise they would have doubled the above. I would like a little information through the BEE JOURNAL.

1. Will dry sawdust or fine shavings answer the same purpose as chaff to fill chaff cushions?

2. How much granulated sugar will it take to equal a pound of extracted honey to feed bees?

3. My queen ceased laying by the last of August—I presume in consequence of the drouth. In what condition will that leave my colonies by the opening of spring? H. F. REES.

Wadsworth, Ohio, Sept. 22, 1893.

ANSWERS.—1. Yes, although good chaff is generally preferred.

2. Five pounds of sugar with two pounds of water will make a good syrup. According to that, 5/7 of a pound of granulated sugar will equal a pound of extracted honey.

3. Probably the majority would say that they will not be in as good condition as though the colony had more young bees in the spring. Still, there is one compensation—the bees have nothing to do, and bees don't grow old so fast when idle.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

IN SUNNY SOUTHLAND

CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Ranch Life in Texas.

Friends, when you come to see us now, you will find us about three miles north of the little city of Beeville. For the second time in my life we are living on a ranch with the bees. We are snugly arranged, though. We have plenty of water, and a wind-mill to draw it; a nice little orchard, and everything handy; but our houses are a bunch of little ranch cabins, but, as there is no cold weather here, good houses are not so necessary.

This is a thinly settled country, and one can pick places here where it is ten miles to any house or timber, and on one of these places I shall place my queen-yard next year.

This is a very healthy country, although my 10-year-old boy is sick with typhoid fever, and it is while I am sitting up nights by his bedside, that I write these lines. However, he was sick, or complaining, before we came here.

While we are nearly three miles from the post-office, still I can drive it in less than 30 minutes in a buggy, as the roads are *very* good here all the time. While this county has not had a good rain since last May, grass is green, and stock is doing well. We are about 45 miles from the coast, and we are in the line or reach of the trade winds, and the pure air seems to feed vegetation, and the flowers, I am told, always yield honey. It rains but little here from May until August, as a rule, and the climate seems about like the coast country of Southern California, only it does not get nearly so cold here in winter.

This is said to be a fine place to benefit weak lungs, and like affections, but one accustomed to a thickly settled country is likely to become dissatisfied, for there are but few neighbors out from the little towns. But I rather admire living on a ranch, for I can then sing or hollow as loud as I choose, and it disturbs no one; and, then, we are not bothered with people all day long hollowing out, "Robbing!" When we lived on the public highway almost every one that came along would hollow "Robbing!" as they thought that "robbing" was all there was to do to bees, and several remarked that our bees would not do any good for we worked with them too much, etc.

Now, as some have been asking questions lately, I have written this article and given all the information in a bundle.

As nearly as I can remember, there were some letters of inquiry lost in my moving, and I have thought of all I could, and hope those who ask the questions will excuse me if I have not answered in full.

Oh, yes, I remember one more question. Bees begin to swarm here about Feb. 15th to March 1st, and some swarms issue all through the season. Then the bees take another general spree about Sept. 15th. Our first honey here at this place is from black chapperal; next, white chapperal — both bloom in January; then fruit bloom, and catclaw blooms in May. Mesquite blooms after every rain during the entire year, December and January excepted. Yes, the honey is very fine.

Willie went out and bought one load of bees since we came, at $1.25 per colony; and we transferred them, taking about 40 pounds of nice white comb honey from one colony. The others were moderately heavy. I am told that where there is timber on the rivers here, the woods are full of bees.

Friends, after I am here awhile, I will tell you all about Bee county. We only know the road to town and back now, but we mean to explore the county soon.

JENNIE ATCHLEY.

Method of Rearing Queen-Bees.

MRS. ATCHLEY:—I send you my method of queen-rearing. I don't want to advise old and experienced bee-keepers, but I am always glad to tell any one how I do things, and then they can do just as they like about accepting them.

I first select one of my strongest colonies, and I make it queenless. I then remove all combs containing unsealed larvæ, and put empty frames, or frames of honey, in their place, leaving room for a special frame in the center. This latter frame has two cross-bars the same width, and running parallel with the bottom-bar.

On under side of the two middle bars I attach the Doolittle cell-cups. In each cup I put an egg about 24 hours' old, and sufficient royal jelly for about 12 to 15 hours, when the bees will take care of them.

The cells, when about ready to hatch, I place in a spiral protector, and put them into queenless colonies or nuclei, etc. The best part of this plan is, that the whole force of nurse-bees having no larvæ to take care of, will devote their whole time to supplying the queen-cells, and by making the cells quite large, I always get large, fine, plump and well-developed queens.

I have reared 40 fine queens in one colony by my method.

Plainview, Nebr. J. F. HECHT.

Drones Touched by the Mating.

Being a queen-breeder, and interested in a sure and safe way to mate my queens, I have this year been experimenting as to what I could do to determine whether or not the drones were touched by the mating as well as the workers, etc.

I had some fine Italian queens mated with black drones—I mean queens that were yellow *all* over; then I had a sister to such queen mated with a drone yellow all over. I also clipped the wing of a third virgin sister, and mated a thorough black queen with an Italian drone. Now for results:

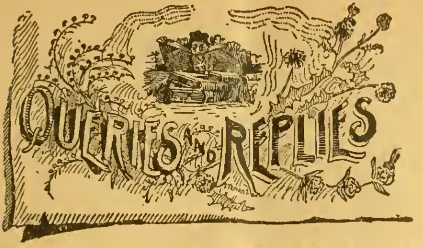
The yellow-all-over queen mated to a black drone shows a part of her drones black, or nearly so, some one and some two banded, and some yellow all over.

The black queen mated to an Italian drone shows nearly all black drones, but occasionally one with a slight yellow band.

The drones from the clipped virgin are all solid yellow; also those from the yellow queen mated to the yellow drone produce all yellow drones.

Now I am fast coming to a conclusion that drones also are touched by the mating. JENNIE ATCHLEY.

Honey as Food and Medicine is just the thing so help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the BEE JOURNAL for description and prices.



Bees Affected with the Diarrhea While in the Cellar.

Query 893.—What should you do when you find a colony affected with the diarrhea in the cellar, and it was too early or too cold to give them a cleansing flight by removing them temporarily from the cellar?—Nebr.

We wait.—DADANT & SON.

Nothing.—J. H. LARRABEE.

Nothing.—MRS. L. HARRISON.

Let them alone.—P. H. ELWOOD.

I would try moving it to a warm room some evening.—EUGENE SECOR.

Give plenty of air to the hive, and let them alone.—G. M. DOOLITTLE.

Try to be more cautious so that the experience would not be repeated.—A. J. COOK.

I do not know. I would not put them in the cellar, to begin with.—EMERSON T. ABBOTT.

Let it alone, and look to the condition of the cellar, and change what might be wrong with it.—A. B. MASON.

I should let them severely alone, until a day arrived when they could safely be given a cleansing flight.—W. M. BARNUM.

I should let them severely alone; or, if I did anything, I should put them out and let them "gang their ain gait."—J. E. POND.

Nothing, except to have the hive wide open at the bottom, and to keep the temperature well up—to 45°, or higher. —R. L. TAYLOR.

Warm up the cellar with a fire. Some one has suggested peppermint dropped on blotting paper and put in the bottom of the hive.—C. C. MILLER.

If I found the bees affected with diarrhea, I should try to give them a dryer place to live in. I think the trouble is too low a temperature, and too damp.—E. FRANCE.

Place them in a box that you can make dark; put in two or three hot bricks, and put the hive on top of the bricks. Remove the top, so the hot air will go up, and use judgment with what you are doing.—H. D. CUTTING.

Raise the covers by inserting an 8-penny nail under each corner. Also remove the blanket, if they have one, and open the entrance wide. Keep the temperature at about 45°, and the cellar dark and quiet.—MRS. J. N. HEATER.

I do not winter bees in a cellar. If I did, and should find a colony in the condition indicated, I should let them severely alone until such time as they could have a good flight. Any tinkering, or doctoring, would only hasten the end.—M. MAHIN.

If they were badly affected, I should give them a flight the very first warm, sunny day that came along. I should very much prefer not to be caught with bees in that condition in winter. Better see in time that they have something besides honey-dew to live on.—C. H. DIBBERN.

I am, by your question, like the mule was that could not swim. The river was up; a bale of hay on one side, and the mule on the other. How was the mule to get the hay, as there was no bridge. Well, he had to give it up. So if it is too bad for every thing, I would give it up.—MRS. JENNIE ATCHLEY.

If they have been kept on natural stores, try feeding them on granulated sugar syrup, and raise the temperature of the cellar, if you can manage to do so. If only one out of many was affected, and the rest quiet, it might pay better to sacrifice one than risk changing the surroundings of the whole lot.— S. I. FREEBORN.

I do not think it would pay to try to do anything with them, though some have reported success by placing the hive in a gauze or wire-cloth cage in a warm room for a time, then lowering the temperature gradually until the bees return to the hive. You might experiment by varying the temperature of the cellar, giving more ventilation, etc.— JAMES A. GREEN.

If the bees are worth the trouble and expense, such a colony can be cured by stripping the hive of all covering, close in the bees with wire-cloth, and set the hive in a heated room for at least 12 hours. My experiments on this line made and published in the old AMERICAN BEE JOURNAL some years ago, proved that *over-loaded* bees can be relieved of excessive moisture by heat and ventilation, without the privilege of a flight in the open air.—G. W. DEMAREE.

In my climate (Georgia) the winters are so mild that bees can fly every few days, hence our bees are not affected with diarrhea. But if I were in Nebraska, and had such a case, I would remove it to a warm room, and allow the bees to take a "room flight." Clean out the hive and remove all soiled combs, and if they were deficient in stores, feed with candy until they could fly out-doors, then feed up with sugar syrup.—J. P. H. BROWN.

LANGSTROTH FUND.

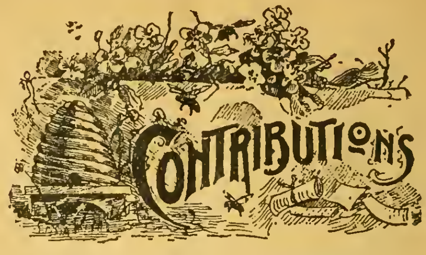
[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported	$22 65
North American Bee-Keepers' Association	50 00
Geo. T. Gunn, Wall Lake, Iowa	25
C. E. Mead, Chicago, Ills	1 00
Total	$73 90

"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the BEE JOURNAL for one year, for $1.70.

Have You Read page 485 yet?



Indications of the Honey Market—Some Experiences.

Written for the American Bee Journal

BY C. W. DAYTON.

(Continued from page 470.)

In the apiary where I was employed, the instructions were to extract when the combs were sealed one-third of the way down, but toward the end of the harvest, negligence allowed several colonies to seal their combs *all* of the way down. When the harvest was over I thought to try my hand at peddling honey in Colorado. A wagon was loaded up, and I started for Cheyenne, about 50 miles distant. After going about 10 miles in the hot sunshine, I looked back at my load and saw honey getting out through some of the screw caps; I laid it to the jolting on the rough roads.

A few miles farther I came to a railroad section-house, occupied by a family of "old country" people, and as I climbed off the wagon, I mentioned that I had a load of honey, and the hot sun and rough roads made it pretty hard traveling.

"Oh," said the lady of the house, "we don't want to buy any; we don't any of us like honey."

Then I said, "I did not stop to sell honey. I am going to *sell* the honey in Cheyenne; but I wished to get a drink of water and inquire the way."

I proceeded to get plenty of water, and make complete inquiries as to the routes, and if there was any water, etc., and returned to the wagon as if to depart; but before doing so I stopped to wipe up the honey which had gotten out of the cans, and to re-arrange other things which had jolted out of place; in doing this, crates of sections, packages of extracted honey, and other peculiar utensils were brought up in sight or piled upon the seat while I continued to mutter aloud as to the difficulties of handling honey and hauling it long distances to market, giving the parents and children time to arrange themselves alongside the wagon.

While they were thus viewing the menagerie, I carelessly remarked that there was a difference in honeys, and although the honey they may have eaten may not have been good, they might again find some which they liked, continuing that nearly all Colorado honey was gathered by the bees from the blossoms of alfalfa (a plant with which they were intimately acquainted), the principal feed for horses and cattle, and which, like red clover in the East, is plowed under so that potato and wheat crops may be raised afterward. Alfalfa is a God-send for Colorado. Then I spoke of the honey resources of the East, and the poor season.

The lid of a pail had some honey on it, and I gave it to a little girl to lick off—my hands were *so* busy elsewhere. Presently she spoke up, "Mamma, this is good honey;" and straightway the other children advanced for a taste, and finally the mother.

Here I shot off in another direction, about the people of Cheyenne being isolated, as it were, in the midst of the plain, and must buy all eatables which must be hauled long distances to them (all of which fitted their own case); the high prices of butter, eggs and meat, and scarcity of sauce, and I was taking a load of honey to them as a change.

But the lady soon spoke up in an exclamatory manner, "Why, that is not honey! That is white sugar and water melted up, and something sour put into it. That don't hit me like honey, and it bites my tongue. Besides, bee-honey is not so white like this. I never saw any."

I declared it was identical to that in the combs, meantime removing three or four sections from a crate. I explained that alfalfa yielded the whitest and best honey of any plant, and that buckwheat, sumac, etc., were a dark color. Combs could not be imitated, consequently the honey was just as put up by the bees.

Then she poked her finger into a section and said, "Yes, *this* tastes like honey, but it is the color of water, just like the other" (as though the color was an objection). Then she asked to taste of the extracted again, and volunteered to say that she *might* take four sections of that in the combs.

I made no haste to get out the four sections, being considerably "rattled" over the probability that there was not a pound of extracted in the lot that was sweet instead of sour, and as I tasted from can to can, as a fluent spokesman I began to lag, and she "chipped in," "They used to have good honey over in Germany, and it was never so white nor sour like this. If there was a dead bee or the foot or wing of a bee in it, I would be more certain that it was *bee*-honey."

Finally, I admitted, "Well. I guess you are right; this extracted honey is a little sour, but I can't account for it unless it is because we did not let it remain in the hives long enough;" and went on to explain the method of extracting, the ripening process by the bees, etc., which would only be a botched piece of patchwork at best.

As I drove up the road out of sight, I began to think, "That was, indeed, a most checkered transaction;" and while I was somewhat elated because I made a sale where it was neither "liked" nor "wanted," I was also mortified to think that part, if not all, of my extracted honey was well along on the road to fermentation, and I stopped to examine every can. If it was all alike, the sooner I turn toward home the better.

Only about two-thirds of it was found to be of this sloppy, frothy kind, which was distinguishable by color as well as taste from its whiteness produced by the small bubbles of air floating in it.

Cheyenne was found to be like other towns I have visited. Being isolated from the bee-districts, many neglected their local markets to rush there with a load as soon as it can be gotten off the hives, and if there is any objectionable honey on hand, such is sure to go. As a consequence, the market is not only overstocked, but is slaughtered; so I found adulteration all the talk, and many who would not even examine honey. Where they could be induced to examine, a sale was made, and the neighbors hearing that there was a load of real honey in town, the demand increased, so that each day I went over the same route selling a greater quantity than before. With extracted at 10 cents per pound, and comb at 15 cents, four pounds of extracted to one of comb were sold.

On returning to the apiary, it was found that the ripe honey in the load was of that which was neglected until it was all sealed, and as the cans were stored in the honey-house, this came on the top of the pile, and my load took down through it and included four or five cans which were only one-third sealed when extracted. If "old hands at the bellows" are going to cut such "fool capers," what may we expect from those newly entering the business, unless we furnish a more absolute rule to follow.

My opinions as to extracted honey are still the same as were expressed in the AMERICAN BEE JOURNAL for July, 1889, viz.: That honey for table use should remain in the combs sealed up until we are ready to take it to market. If liquid honey deserves a price that is twice or one-half more than the same grade of sugar, there must be some characteristic beside its *sweet* taste, which the consumer pays his money for. The mere fact that honey is honey, or, was gathered by the bees, counts for nothing. A pound is no more than 16 ounces. Take the flavor away from maple sugar, which sells here at 12 to 20 cents a pound, and I would as soon take common brown sugar, which could be had a year ago at 22 pounds for a dollar. Now, the question seems to be, shall we sell honey for what it "*is*," or for something else? Color of the combs, for instance.

From the foregoing illustrations, there appears to be two classes of consumers of honey—one paying particular and just regard to the *taste* of the honey, and the other class, the trade of the dealers (and who, with the aid of the dealers, are blindly leading the whole bee-keeping fraternity in the case of comb honey, and are about to kick extracted honey out altogether), buying the whitest colored combs with little or no regard for taste; and, while we are producing honey by the carload, and devising plans whereby the quantity may be increased, which shall we be governed by, the consumer who buys a stingy little section, takes it home to be placed on a high dish away over in the center of the table to be nibbled at in a mousified way for two weeks, or, the consumer who buys five pounds to turn loose in a family who attack and devour it in two days? This latter class are engaged in the gee-haw business, spike-driving, pushing the plane, shoving the brush, etc., while the former are as extensively engaged in fondling poodle-dogs, chewing tutti-frutti, dreaming over dime novels, shifting spectacles, and attending the theatre. Honey being one of the concentrated and heavier classes of food it is not so well suited to their appetites or digestion as pearl oats, tapioca and angel food.

Pasadena, Calif.

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us, as we use many more one-cent stamps than the two-cent kind.

Young Bees a Factor in Successful Wintering.

Written for the American Bee Journal

BY L. W. RICH.

I think that Mr. H. F. Coleman, on page 247, is about right on the bee-wintering question. With a hive well-filled with young bees and plenty of honey, it seems to me that a colony is in a better condition to winter than one in the same condition with old bees.

In 1891 the honey-flow (what there was of it) was early, followed by a drouth that dried up everything so that the bees got scarcely anything afterwards, and the following winter there was the greatest loss of bees that I have known. I saw a statement that fully 75 per cent. of the bees in Iowa died.

Last year, 1892, it was very wet in the forepart of the season, and we got but little honey until the latter part of August and through September. The wet weather in the spring prevented farmers from putting in their regular crops, so they sowed a good deal of buckwheat; the result was that we got an abundant crop of buckwheat honey, besides the heart's-ease, golden-rod, and all the late flowers, had more than an average growth, so that the bees worked on them all through September and into October, storing some surplus. The consequence was that less than 10 per cent. of the bees died during the winter.

Now, in the winter of 1891-92 I think the great loss is due to scanty stores, and the bees being old when they went into winter quarters. There being no honey in the fall, the bees reared no brood, except where they were fed, and of course the bees were old, and hence the loss; where in the winter of 1892-93, the hives were full of honey and young bees, and they came through the winter "just booming."

Again, one of my neighbors, Chas. Blackburn, fed his bees up well in the fall of 1891, and he lost only one colony; where another left his bees to take care of themselves, and lost all, and there was quite a little honey in most of the hives where the bees were dead.

In the fall of 1892 one man gave his bees no attention, and he did not lose a colony. I know of a dozen instances just like these.

The winter question is the greatest bee-problem in Iowa, and as I have suffered a good deal by winter losses, I have given the matter considerable attention, and I have come to the conclusion that brood-rearing should be stimulated as late as practicable; that there should be sufficient honey in the hive; the bees should be put into the cellar before it gets too cold, and be placed on supports at least 1½ feet above the bottom of the cellar; and the hives should be ventilated both at the top and bottom, or the bottom-board should be left off, if the mice can be kept out of the cellar. This I believe will bring the bees through the winter in good condition—at least, it has worked well for me.

I would like to hear from those who have given this their attention. If you have a better plan, let us have it.

We are having a very dry fall here, and it will be well to keep a sharp eye on the bees during the next month, for bees can be helped now to advantage, while it will be hard work to do much with a weak colony early in the spring. Where there is a flow of honey late in the fall, they will rear brood, but if there is not, I think they should be fed enough to start brood-rearing even if they should have sufficient stores.

Lamont, Iowa, Aug. 28, 1893.

Extra-Light Colored Bees—An Old Veteran's Opinion.

Written for the American Bee Journal

BY DR. E. GALLUP.

Now, Mr. Editor, I see that many of your queen-breeders advertise queens 5-banded, producing extra yellow workers, etc. You hold them until I hit them a little, and just see what effect it will have.

Are any of you sure that your extra-light colored and extra peaceable and gentle bees are pure Italians? If so, please inform us how you are sure—the whys and wherefores. Now for what I know:

In years past we had at least two parties that claimed to sell imported queens; said queens never saw Italy—they were reared in this country. Mind that I do not say that those parties never imported any, by no means. Do you know that we can start with a black virgin queen, have her fertilized with a pure Italian drone, and in five generations, by having all fertilized by pure drones, we can have as light-colored 5-banded bees as one could wish to see? But are they pure Italians? Not much. You will also have extra large light-colored drones.

Mr. Adam Grimm, for his own satisfaction went to Italy, selected his own queens, and succeeded in bringing home and introducing 43 successfully. He made me a present of a nice, pure Italian queen, and she proved to be one of the best queens I ever owned. Her progeny were all business, and I want bees for business, every time. She was extra-large, leather-colored, and her drone progeny were smaller than our American drones, and quite dark-colored. The workers were large, active bees, with darkish-colored stripes. I was personally acquainted with Mr. Grimm, and his word was as good and true as the law, every time. He did not believe in the purity of your extra-light-colored Italians, any more than I do.

Mr. Chas. Dadant is another *good authority*, and you will find that his experience corresponds with mine, on this light-colored question. I kept the queen that I received from Mr. Grimm, until she was five years old; the fourth year she was just as good as ever, but began to fail the fifth, and I made way with her. Of course, your extra light ones are nice to handle, but are they up to business? I never found them so. Neither could I succeed in getting them up to my standard.

Being a prominent bee-writer 25 years ago, queen-breeders were anxious to have me recommend their stock; so I had queens donated from all parts. Dr. Hamlin, of Tennessee, sent me an extra-good one; but from lots of other parties it would take three of their queens to keep a hive as full of bees as *one* ought to; and all boasted of the extra-light color and extra peaceable to handle, and some went so far as to boast of their extra large and light-colored drones—almost a sure test of impurity.

Santa Ana, Calif., Sept. 13, 1893.

[Dr. Gallup enclosed with the foregoing article, one written by Mr. Chas. Dadant for the *Illustrated Bee Journal* in 1870, which we reproduce as it is so to the point on the subject discussed by the Doctor. Bro. Dadant's article is as follows:]

THE FOUR-BANDED ITALIAN BEES.

Some three years ago Prof. Flanery offered queens more than pure. This year (1870) Madame, the Baroness of Berlepsch, tells us that Dzierzon, in Germany, has offered bees with four yellow stripes. I guess the thing to be very possible, but to my opinion the queens are not pure—if as pure as the queens imported from Italy.

Let us suppose that, until ten years ago we had here no other hogs than the old white boar, and those the improved imported hogs; were all half black and half white; the mixing of the blood of our white sow with the pure boar would give some white, some partly black, some partly white hogs. In selecting those but for breeding we would succeed in giving to that half-blood race the color of the pure race; furthermore, after new generations, blending only from those having more black, we could produce a new variety entirely black; yes, without restoring the pure black pigs, for the color of the skin is not sufficient. It is the same with bees; the color is, in my humble opinion, one of the smallest evidences of purity.

Let us examine now the bees coming from Upper Italy, where they are kept pure by the Alps Mountains on the north side, and cannot possibly intermix with those of another race; for the yellow variety exists alone for many hundred miles from the Alps to the sea. The first ring of the abdomen, that section which is attached to the corselet, is leather-colored; the second ring is of the same color, with a narrow border of black; the third ring has the same color with a black border; the black edge is sometimes so broad that often the bee, being empty, she seems to have only two yellow stripes; besides, all the rings of the abdomen have a thick edge of hairs fawn-colored; these hairs disappear with age. As for the shape, the Italian bee is more slender, her abdomen, if empty, is longer, more round, more slim, than the same in the black bee; if full, her abdomen is longer and larger, for her sac is more capacious, while the Italian bee has her wings more separated from the body.

Such are the marks to recognize *de visa* the family of the Italian bee. There is also an unerring sign, that is, their demeanor as the comb is taken from the hive; if pure, the bees remain on the comb, and do not seem to be disturbed; the purer they are, the more still on the comb. The black bees remain clustered under the comb. To an experienced eye, the shades between these two different departments are the best tests of purity.

Some years ago I received queens reared here. These queens were very handsome. I have bred from them many very light-colored queens; yet, today, I am satisfied that those queens were not pure, in all the acceptations of the term. They were daughters of queens imported from Germany, but Germany, as well as the United States, has plenty of black drones to intermix with its queens. I am surrounded with apiaries, none of them yielding certain black bees, and also Italian bees of every shade, purity from a sixteenth, nay, to a thirty-second degree. If one of my lighter queens mate with a drone having an eighth part of black blood, her progeny will no longer be pure; yet I am unable to detect the difference. So it is in Germany, although the queens reared there are more yellow than the Italian imported queen.

Perhaps some readers of this article would guess that I am an importer of Italian queens. I can answer, that being in intercourse with France, Italy and Germany, it is as easy a matter to procure queens from one of those countries as from another, but my preference is in favor of Upper Italy for these, the workers, the Italian queens, are of undoubted purity. CHAS. DADANT.

Bee-Keeping in Utah—Sweet Clover, Etc.

Written for the American Bee Journal

BY HOMER BROWN.

The last winter was a severe one on bee-keepers in Salt Lake county, as one of our bee-inspectors told me that the loss, as far as he had been (up to about the middle of July), was about 90 per cent. My individual loss was not so great as that, but as the season was so backward I thought I was not going to get a pound of honey. Notwithstanding there was a profusion of alfalfa blossom, there seemed to be no honey in it, for in going over a 15-acre field that was in full bloom, I could not count a dozen bees. It was the first of August before I got my first super of honey, and no swarm until the 8th; this out of between 50 and 60 colonies. But owing to the sweet clover and the Rocky Mountain bee-plant they have done fairly well since that time, and are still storing some honey.

On Aug. 27th I took 21 pounds of comb honey in one-pound sections, from the swarm I caught on the 8th, and I think I will get about 40 pounds more from the same; besides, they have eight Langstroth frames well filled in the lower hive. I mention this because of the old saying, "A swarm in July is not worth a fly."

On Aug. 22nd I caught my second swarm, and they have a super of 24 sections nearly ready to take off.

These are my only two swarms for the season, therefore it is *more* swarms that I am after, for I find them no detriment. By the way, is there not too much of an effort to prevent the natural increase of bees as well as of the human race?

BEE-PLANT AND SWEET CLOVER.

I want to gather enough seed of the Rocky Mountain bee-plant to sow on the neighboring highways and byways, for it has been the making of nearly a ton of beautiful white honey for me.

Many people think the sweet clover useless for stock, but my horses and cows eat it with avidity, when cut in season.

Taylorsville, Utah.

The Foul Brood Question—Its Origin, Etc.

Written for the American Bee Journal

BY SAMUEL SIMMINS.

The origin of foul brood? What is it? The practical man says, "Neglected dead brood." The scientific theorist says, "It can only proceed from contact with pre-existing disease;" or that it is perpetuated by the micro-organisms peculiar to that disease.

Let us reason together. As a matter of fact, health existed prior to disease; hence the respective microbes are only *evidence* of any particular disease. They can, and do, act as a means or cause of continuation, but when I repeat that healthy tissue existed before a diseased condition of the same could occur, then it is self-evident that microbes were not the origin, but the *result* of disease.

In using the term "cause of the disease," your esteemed correspondent, Mr. McEvoy, meant to express himself as believing that the sole "*origin*" etc., of the foul brood is neglected dead brood. *Bacillus alvei* is one of the causes of continuation by infection, but not the origin of the disorder.

Seeing that primarily the disease was contracted without any external communication, scientific theorists should not overlook the fact that what has happened once, can, and does, happen again.

Mr. McEvoy's one weak point is, that for want of microscopic examination, his experiments do not convince the scientific opponents that he so bitterly denounces. To the unbiased mind his conclusions are mostly convincing, and if only sustained by microscopic examination his extensive experience might have placed him on record as being a greater scientist than those he condemns. One man cannot attain perfection in all details, and Mr. McEvoy must not be surprised that he has left weak places in his armor where his opponents can assail him; but there is one thing he can be quite sure of—not one has yet *proven* that foul brood does *not* originate in long-neglected dead brood.

About the year 1875, I had just such an experience as those Mr. McEvoy places on record. I conquered the disease, and then gave my opinion that the plague originated from long-neglected dead brood. The scientific theorists ridiculed the idea, but none of them, to this day, have proved that my statement was not founded on fact.

In those days, I was very much confined in-doors, so I must needs get up one chilly summer morning at 5 o'clock, and proceeded to extract the honey from every comb containing brood in several hives. As a natural consequence most of the brood became chilled. Being busy, and never having a thought of the terrors of the real plague, those bees were allowed to clear up as best they could. The wholesale mass of dead brood was too much for them. Think of the warmth of the bees acting upon the decomposing brood! the fermentation! winter following—and in the early spring the remnant of bees dying off after again vainly attempting to rear brood. What an awakening, with robbing just beginning!

And mark this! Only just those colonies subjected to chill by extracting from the brood-combs that morning, were found diseased on my first examination in the spring, while the disease only developed in others *after* the robbing had commenced.

Ours would be just the climate where bees, while being reduced in numbers, would be unable to clear out a mass of dead brood. Mr. McEvoy presents cases in which a mass of putrid matter surrounded small clusters of enfeebled bees, so that they could not possibly clear it away, while the saturation by water was a very serious item in the development of disease.

Chill, returning warmth of the bees sitting upon a death-bed of putrifying bodies, with fermentation ensuing, and long continued—surely that was enough to start the fungus-like growth of *Bacillus alvei.*

Foul brood had not been known in my district, neither did it exist there after I had cured that apiary, until the time I left the location. Another apiary I had only three miles off was perfectly free all the time.

Friend Hutchinson gives a number of instances of dead brood which did not result in foul brood. I could give as many more, and never hesitate to use combs containing simple dead brood, but I would not advise any one to leave whole frames of dead brood, month after month, where the bees cannot get rid of it. He goes on to say, "But to decide that foul brood results from dead brood because the latter is immediately followed by the former, is not scientific." As a matter of fact I have never claimed that the disease *immediately* follows upon dead brood.

No, that is just the point. Practical men are not afraid of simple dead brood. It is the wholesale quantity, originating in such a manner that the bees are rendered too weak, and incapable of removing it. It is when it is left in that condition *month after month*, with a certain amount of breeding still going on—the living, breathing and feeding among the dead—with the fermenting warmth of the clustering insects, which appears to generate the fungus growth of the foul brood virus.

I *believe* I could produce the genuine foul brood, with bees started as a pure swarm, and excluded from all intercourse with other bees. It is only my duty to customers that prevents me trying it; but while I cannot be positive, all my experience tends to prove that aside from the causes of continuation, the actual origin of the foul brood virus was in the long-continued fermentation of wholesale quantities of dead and rotten brood *in connection with the bees occupying the same combs.*

While we consider the cause of continuation by infection to be *Bacillus alvei*, seeing that healthy brood must have existed before the arrival of that disordered condition which enabled the microbe to live upon that brood, then we are compelled to admit that the same fungus growth can be again developed without any infection from outside sources, if only the same disordered condition be again produced.

If, then, we are compelled to arrive at this conclusion, it must be assumed that all animal life carries with it certain infinitesimal and unobserved seeds of disease and death, which develop into microbes only in the presence of those various disorders brought about by the violation of Nature's laws.

My position still holds good, that the various micro-organisms are merely the evidence or accompainment of disease in its various forms, and not the origin of those disorders, though they may act as continuing causes by means of infection.

In my next I propose to treat upon the means I employed in curing the disease.

Seaford, England.

Convention Notices.

CONNECTICUT.—The next meeting of the Connecticut Bee-Keepers' Association will be held at the Capitol at Hartford, Conn., on Thursday, Nov. 2, 1893, at 10:30 a.m.
Waterbury, Conn. MRS. W. E. RILEY, Sec.

ILLINOIS.—The annual meeting of the Northern Illinois Bee-Keepers' Association will be held in the Supervisor's Room of the Court House, in Rockford, Ills., on December 19 and 20, 1893. A good programme is being prepared and all are cordially invited.
New Milford, Ills. B. KENNEDY, Sec.

PENNSYLVANIA.—The Fourteenth Annual Convention of the North-Eastern Ohio and North-Western Pennsylvania Bee-Keepers' Association will meet in the parlors of the Coleman House, Union City, Pa., October 25th, at 10 o'clock a.m., for a two days' session. All interested are invited to attend. Union City is located on both the New York, Pennsylvania and Ohio, and the Philadelphia and Erie railroads. Rates at hotel will be $1.00 per day to those attending the convention. GEORGE SPITLER, Sec.
Mosiertown, Pa.

MISSOURI.—The 8th semi-annual convention of the Missouri State Bee Keepers' Association will be held at Pertle Springs (near Warrensburg) Mo., on Oct. 18, 19 and 20, 1893. It is desirable that as many as can possibly make arrangements will be present, in order that the prosperity of the Association shall not suffer in these poor seasons, for want of personal support. The Executive Committee will prepare a program that will give all an opportunity of expressing themselves on the most important subjects now occupying the attention of the bee-keepers of the country. Arrangements have been made with the M. P. Ry. Co., for 1⅓ fare, certificate plan. Accomodations at the Pertle Springs Hotel will be reasonable. Bee-keepers from any State and every State will be cordially welcomed. P. BALDWIN, Sec.
Independence, Mo.

The Louisiana Hotel is the place where the North American bee-convention was held on Oct. 11th, 12th and 13th. See the advertisement of the hotel on page 508 of this issue of the BEE JOURNAL. Any of our readers who may be coming to the World's Fair since the convention was held, would do well to "put up" at the Louisiana Hotel. Full information, on page 508.

OUR
LETTER BOX
REPORTS PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Best Season in Five Years.

We have had the best honey crop this year since I have kept bees (five years). I had 3 colonies last spring, and bought one, and they have increased to 10 colonies, and have averaged 85 one-pound sections of honey per colony, spring count.

W. A. HARRINGTON.

Irene, Ills., Sept. 25, 1893.

Quality of Honey Better this Year.

During the past four years I have sold so many bees that my apiary has only contained from 40 to 50 colonies. This year my average surplus was 55 pounds in sections, per colony, against 65 pounds last year. The quality is somewhat better than common, as the bees had forage on alfalfa bloom continuously from June 15th to Sept. 15th.

JAMES BURTON.

Jamestown, Kans., Sept. 29, 1893.

Booming on Wild Asters.

Bees are booming on wild asters here now—the first honey they have gathered since about the middle of July. If the weather continues fair for two weeks more, I think they will be all right for winter stores. We had an unusually poor honey season this year, and if we have as severe winter as we had last, I look for a heavy loss in the bees of those who don't pack them well.

W. S. FEEBACK.

Carlisle, Ky., Oct. 7, 1893.

No Exhibit at the St. Joseph Fair.

The St. Joseph, Mo., Fair is over, and there was no honey display at all, as the Board, or some member of it (all I have seen say they did not do it) thought it best to drop all of the money premiums, and give only diplomas and medals. The bee-keepers of this locality are not very much taken with medals. This change was made, and I was appointed Superintendent, without my knowledge. When I learned of the change, it was too late to make any protest. However, as the Fair was about given up this year to racing and gambling, I have no disposition to have any more to do with it, and my name will not be seen in connection with it, in the future, as long as it continues under the present management. I can stand the racing, but I draw the line at selling a right to run a gambling-house.

I felt that I owed this explanation to myself, in view of my relation to our Fairs that have been held ever since I came to the place.

EMERSON T. ABBOTT.

St. Joseph, Mo., Sept. 29, 1893.

The Season in Pennsylvania.

The season here has been dry since the middle of the summer—too dry and cold for a fall honey harvest. The clover and basswood honey was of very fine quality, and the yield good where colonies were strong. I had the largest yield I ever had, this season, from *a few* colonies. For good reasons, the yield from the whole apiary was small. So it was with others.

GEORGE SPITLER.

Mosiertown, Pa., Oct. 7, 1893.

Queen and Worker in the Same Cell.

Bees will so enlarge a queen-cell sometimes as to cover the capping of an adjacent worker-cell; hence, when the worker matures, it will eat its way out somewhere. The position of the worker, as described by Mr. McKean, on page 409, showed that it gnawed its way into the queen-cell. The worker was not reared in the queen-cell, else it would have feasted upon royal-jelly and came out a queen also.

Updegraff, Iowa. W. P. FAYLOR.

Plenty Bloom, but No Honey.

The past season was a poor one for this vicinity. We had all kinds of bloom—white clover, linden, buckwheat, goldenrod—in fact, all the bloom that is natural for this part of the country, but none of it seemed to contain nectar but the linden, and that was of short duration. The increase of bees was small.

We always hail the BEE JOURNAL with delight, as we are anxious to hear from the family of bee-keepers.

J. F. HIGGINS.

Bethany, Mo., Sept. 30, 1893.

Little Susie Heard from Again.

DEAR EDITOR:—I thank you ever so much for putting my letter in the BEE JOURNAL. Papa has three bee-papers to read. I read a few of them. You know I said before that he had one colony of bees. Now he has five. I will tell you how he got them.

You know I said one swarm went off, but papa thinks it went back into the hive, as it swarmed two days after, and then again in about a week. Then he found one in the cemetery; and our neighbor's bees swarmed, and he had no hive, so he gave them to papa. He thinks he's a big bee-man now.

Papa found out that his bees were gathering honey-dew, so he took off the good honey and is going to save it for winter for them to eat. He took off about 25 pounds. He was telling me all about it.

I am much obliged to Mr. T. C. Kelley for telling me how to stop a swarm with a mirror. We will try it. But still, mother and I think that tin pans stop them. You see, we think we are doing something, and the noise seems to stop them.

What seems to be the great trouble now with us is, how to winter the bees. But we will watch for advice in the Bee Journal.

Susie Weed.

Lanark, Ills., Sept. 17, 1893.

Weak Colonies and Light Crop.

Our honey crop this year has been light, owing to the weakened condition of most of the bees in the spring. I have Italianized all of my bees this summer, as I lost most of my black queens last winter, and I tell you the queens I reared this summer produce fine bees. They nearly all produce four and five banded bees, and they are "getters" when it comes to honey-gathing. They are gathering honey very fast now when the weather will permit. I think if there comes fair weather for a few days, the most of the bees will be in condition to go through the winter. R. A. Shultz.

Cosby, Tenn., Oct. 6, 1893.

Will Italian Bees Rob?

Well, I should say so. One of my neighbors came to my house a few days ago and said. "Your bees are just swarming down at my place. I believe they are going to clean my bees up." "How do you know they are my bees?" I asked. "Well, sir, they are Italians."

Well, he had me, for I have the only Italian bees in the neighborhood. I gave him some nice section honey, and he went home feeling all right.

Bees have done nothing here this fall.

C. V. Mann.

Riverton, Ills., Oct. 2, 1893.

A Good Report from Wisconsin.

I will report my two-year-old business as a bee-keeper for this season: After spring losses I started in with 10 colonies, increased to 33, by natural swarming, and harvested 1,500 pounds of comb honey in one-pound sections—600 pounds dark and 700 pounds white—all of which will grade "Fancy" and No. 1; the balance is 200 pounds of bulged and crooked combs, that I cannot pack for shipping.

In addition to the above I have 300 sections partly filled with from one to 10 ounces altogether. What had I better do with them? Have I not done fairly well for a two-year-old bee-keeper? I must give the Bee Journal a good share of credit for my success. My bees are all the offspring of four Italian queens bought two years ago, and appear to be about two-thirds of them Italians and the balance hybrids, but they "get there, just the same." All my hives are heavy enough with stores for wintering. B. H. Newland.

Melrose, Wis., Oct. 3, 1893.

[On page 336 your question about partly-filled sections was pretty fully answered. Just refer back to that page, and you will find what about twenty of the best bee-keepers would do with them.—Ed.]

Bees Throwing Out the Brood, Etc.

In answer to Mr. J. E. Walker's question, on page 396, I would say that here in Iowa the first cold snap we have you can always see the bees pull out the young bees and roll them out. I have noticed this for a good many years.

Our long dry spell is broken at last. We had no rain to speak of for three months. Bees are not in very good condition for winter, but a great deal better than we expected they would be, considering the condition. N. Staininger.

Tipton, Iowa, Sept. 30, 1893.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Oct. 25.—North-Eastern Ohio and North-Western Pennsylvania, at Union City, Pa.
Geo. Spitler, Sec., Mosiertown, Pa.

Nov. 2.—Connecticut, at Waterbury, Conn.
Mrs. W. E. Riley, Sec., Waterbury, Conn.

Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

Dec. 19, 20.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

☞ **In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.**

North American Bee-Keepers' Association

Pres.—Emerson T. Abbott.....St. Joseph, Mo.
Vice-Pres.—O. L. Hershiser....Buffalo, N. Y.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

When Renewing Your Subscription, why not send along one or more new subscribers, and take advantage of our liberal premium offers on the 5th page of this copy of the Bee Journal? You certainly can easily secure the subscribers, if you will show them that they also receive their choice out of several free premiums. Try it, and see what you can do.

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, in Washington, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

CHICAGO. ILL.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, 5@7c. Beeswax slow at 20c.
Sept. 14, J. A. L.

CHICAGO, ILL., Sept. 15.—The receipts of comb honey have not been in excess of the demand up to this date. We have yet very little surplus. Prices remain at 15@16c. for the very best grades. Discolored combs and the darker grades generally are slow of sale at about 14c. Our sales, however, are chiefly at 15c. We consider this about the best season of the year for shipping and selling comb honey. It stands transportation better than it will when the cold weather comes, and people buy it in larger quantities than they do later in the fall. Extracted is nominal, some sales being made all the time at prices ranging from 6@7c., with some other dark goods a little lower. Beeswax salable at 22c. We would advise those having honey ready to ship, to send it forward during this month, or early next. R. A. B. & Co.

ST. PAUL, MINN.. Oct. 9.—Our market for comb honey is improving, and receipts since our last report have moved off fairly well, prices unchanged. We quote best white comb honey 14@15c. for California. Extracted lower under free offerings from the coast; we quote 5½@6c. for white or amber in five-gallon tins. S. & A.

NEW YORK, N. Y., Oct. 10.—Comb honey is in fair demand for fancy stock. Supply is large. We quote: Fancy white, 14@15c. for 1-lb. and 12@13c. for 2-lb. sections. Demand for off grades is very light and slow selling at 12@12½c. for 1-lb. and 11c. for 2-lb. sections. Buckwheat scarce and in good demand at 11@12c. for 1-lb. and 10c. for 2-lb. sections.

The market on extracted is quiet, with plenty of supply. We quote: White clover and basswood, 6@6½c.; California, 5½@6c.; Southern, 65@70c. for choice and 55@60c. for common, per gallon. Beeswax is in fair demand at 23@25c. H. B. & S.

BOSTON, MASS., Oct. 9.—We quote honey as selling fairly well. Best white at 15c. Extracted, 6@7c. Beeswax, 25@28c. B. & R.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

KANSAS CITY, MO., Sept. 14.—Demand is good. Supply light. We quote: 1-lb. comb, 16c.; light weight, 14c. Extracted, white, 7½c.; amber, 6½c.; dark, 5@5½c.
Beeswax, 22@25c. H. & B.

ALBANY, N. Y.. Oct. 10.—Honey market is firm for all grades of comb honey, and we can sell readily to good advantage, more than receiving. Extracted honey slow. We are selling choice white comb at 15@16c.; mixed, 13@14c.; dark, 11@13c. Extracted, white, 7@8c.; mixed, 6@6½c.; dard, 5½@6c. H.R.W.

CINCINNATI, O., Oct. 10. — Arrivals are large of extracted honey, with a slow demand at 5@8c. a lb. Arrivals of comb honey are fair, with a fair demand at 14@16c. a lb. for best white, in the jobbing way.

Beeswax is in fair demand with plentiful arrivals at 20@23c. a pound for good to choice yellow. C. F. M. & S.

CHICAGO, ILL.—We quote: Fancy selling at 16c.; choice, 15c.; No. 2, 13@14c.; poor, 12c. With prospects of a large crop, we advise early shipments to the market. Extracted selling at from 5½@7c., depending upon the color, flavor and style of package, and quantity the buyer will take. Beeswax, 22@24c. We have no stock on hand. S. T. F. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & CO., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

Have You Read the wonderful book Premium offers on page 485 ?

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Review	2 00	1 75
Canadian Bee Journal	2 00	1 75
The Apiculturist	1 75	1 65
Progressive Bee-Keeper	1 50	1 30
American Bee-Keeper	1 50	1 40
Nebraska Bee-Keeper	1 50	1 35
The 8 above-named papers	6 25	5 25
and Langstroth Revised (Dadant)	2 40	2 25
Cook's Manual of the Apiary	2 00	1 75
Doolittle on Queen-Rearing	2 00	1 65
Bees and Honey (Newman)	2 00	1 65
Advanced Bee-Culture	1 50	1 35
Dzierzon's Bee-Book (cloth)	2 25	2 00
Root's A B C of Bee-Culture	2 25	2 10
A Year Among the Bees	1 50	1 35
Convention Hand-Book	1 25	1 15
Illustrated Home Journal	1 50	1 35

◆

Everybody who has heard of Lord & Thomas' great Chicago advertising agency knows their motto—"Advertise Judiciously." Many are the novel ways in which they impress these two words upon the public. Their latest plan is to distribute thousands of rules for measuring advertising space which bear this legend and the compliments of the firm. Any general advertiser can secure one of these convenient little articles by writing for it.

◆

Well Pleased.—I am well pleased with the BEE JOURNAL, and do not see how any beginner could get along with bees without it.—J. T. BROWN, Sumas, Wash.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—To exchange Barnes' Foot-Power Saw for Extracted or "Chunk" Honey. JAKE EVERMAN,
North Middletown, Ky.

TO EXCHANGE—A fine, new Winchester Repeating Rifle, for Extracted Honey.—Write for particulars. Address,
J. CARL YORK, Room 720,
56 Fifth Avenue, Chicago, Ills.

Advertisements.

How to Propagate and Grow Fruit!

BY CHAS. A. GREEN, OF NEW YORK.

This is a neatly bound and nicely printed pamphlet of nearly 80 pages, and tells how to grow Strawberries, Raspberries, Blackberries, Currants, Gooseberries, Grapes, Quinces, Peaches, Apricots, Plums, Cherries, Pears and Apples, with illustrations showing how to Bud, Graft and Propagate from Layers, etc. It reads like a story. Every bee-keeper and fruit-grower should have it. Price, 25 cents; or

Sent Free for Getting One New Subscriber

to the BEE JOURNAL for one year, with $1.00. It will pay you to read this book The chapters on "The Boy on the Farm" (page 13), and "How to Make Money" (page 27), alone are worth more than the price of the book. Order now.

Address, **GEORGE W. YORK & CO., CHICAGO, ILL.**

FOUND AT LAST!

JENNIE ATCHLEY has at last found a place where she can rear **GOOD QUEENS** all the year round. I am now located just about as far south as one can well get in the U. S. I will mail you a Nice Untested Queen, from now till March, for $1.00; 6 for $5.00. Tested, 3-bands, $1.50.

Remember, I mailed queens to Virginia last winter successfully when the ground was frozen a foot. Those wishing queens by the quantity for next year, apply early. I am testing a large lot of Fine Breeders, and those wishing the finest, can have orders booked now and Queens can be sent next Spring. $5.00 each; when $4.50 accompanies the order, secures one Fine Breeder.

JENNIE ATCHLEY,
BEEVILLE, Bee Co., TEX.

Mention the American Bee Journal.

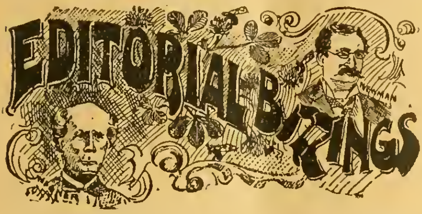
ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor.
DEVOTED EXCLUSIVELY TO BEE-CULTURE.
Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., OCT. 26, 1893. NO. 17.



Bro. C. B. Bankston, of Chriesman, Tex., had the great misfortune to have his residence and all its contents burned on Oct. 8th. He is a rising young queen-breeder, and will have the sympathy of all his bee-keeping friends in his severe loss.

* * *

The Report of the recent meeting of the North American convention we had expected to begin this week, but our reporter has not yet sent in any of the matter, so it will have to be delayed until another week, when we hope to be able to publish a good slice of it.

* * *

Scores of Bee-Keepers, from all over the United States, have favored the Bee Journal office with calls during the past two weeks. So many have kindly "dropped in" on us, that we could not keep track of them so as to mention each one in a personal item in the columns of the Bee Journal. We wish, however, to assure them all that we were delighted to meet them and make their acquaintance, and trust that the friendships thus formed may be mutually pleasant and continuous. We are always glad to see both our new and old bee-keeping friends, and trust that whenever any of them are in Chicago, they will come in and at least say, "Howdy?"

An Extra Large Honey Crop is reported this year in the section of country around Valley Centre, San Diego County, Calif. It seems that in many localities of the United States the honey crop of 1893 was either an exceptionally fine one, or else a total failure. It is very refreshing to hear of a large crop of honey. Oh, that it could have been universally so! Then could all bee-keepers rejoice with exceedingly great joy. But now the fortunate can "weep with those that weep," and thus average up on "feelings," at least.

* * *

Southwest Texas.—An Illinois subscriber to the Bee Journal would like a description of Foley and Presidio counties in southwest Texas, through this paper. A full description of the counties, as well as the people, would be greatly appreciated. Is it a good location for bees? Will some one who knows, please comply with this request, as briefly as possible, and yet do the subject justice?

* * *

The Various Honey-Exhibits at the World's Fair have been great attractions to even those not directly interested in bee-culture. Bro. Secor, the well-known Judge of the apiarian department of the Fair, has been much pleased with the displays from all countries, and of course has found everything that was placed on exhibition relating to bee-keeping, no matter from what part of the world it came. He has very kindly furnished us a list of the countries represented, and tells about it in the following paragraphs:

It may be of interest to bee-keepers who have not visited the World's Fair, and possibly to some who have, to know the magnitude of the exhibition relating to our industry.

Entries were made from 17 States and Territories, but the principal exhibits were from New York, Illinois, Ohio, Michigan, Iowa, Nebraska, Wisconsin, Indiana, Minnesota, California, and Ontario, Canada. But from foreign countries entries were made as follows:

Russia 5, Greece 4, Costa Rica 7, Ceylon 2, Great Britain one very fine exhibit contributed by over 100 members of the British Bee-Keepers' Association; Brazil 5, Germany 2, Haiti 3, Mexico 2, Gautemala 1, Argentine Republic 3, Ecuador 1, Spain 3, Ottoman Empire 3, Venezuela 1, Italy 3, and Siam 1. Some of these foreign countries, though only making a single entry, showed several varieties of honey. It was generally in the extracted form. In the Costa Rica building was shown some sections of comb honey in our American basswood one-piece sections. At least they looked like ours.

Russia showed some very nice comb foundation, a Russian extractor, hives, models of hives, and a great variety of apiarian appliances, besides extracted honey and honey in glass sections. Bee-keepers of that country are evidently reading, and adopting many of our modern notions. They have a wonderfully interesting exhibit to American bee-keepers.

One thing is noticeable, most of the honeys of Central and South America remain liquid longer than northern honey.

EUGENE SECOR.

◆

A Section Scraper has been gotten up by Thos. Johnson, of Iowa. It is a knife that is a trifle over 6 inches long including the handle, the blade being 2¾ inches long, with a ⅛ inch extension ¼ inch wide at the end of the blade. Instead of the ordinary cutting-edge, it is as dull as the back of an ordinary case-knife, and is used for scraping off propolis, etc., from sections. Mr. Johnson left a sample scraper on our desk, and it looks as though it would do the work well—he says it will.

◆

The Minneapolis Honey-Show was good, the premiums were liberal, and everything moved off nicely. Messrs. Wm. Urie, Minneapolis, John Turnbull, of La Crescent, and C. Theilmann, of Theilmanton, Minn., were the principal honey exhibitors.

In the *Farm, Stock and Home* for Oct. 15th, Mr. B. Taylor says, after just having visited Minneapolis and St. Paul:

> We found the markets of the Twin Cities well stocked with honey, and prices low. But there has not been more than one-third of a full crop of honey in Minnesota this year, so do not rush your honey to city markets, for you thereby overstock them, and make low prices certain. We are selling our entire crop in our home market at fair prices, and we earnestly counsel others to do the same. You need have no fears about holding your honey, as the small crop is sure to make a better market for it later.

◆

Have You Tried to get a new subscriber for the BEE JOURNAL this fall? We offer to throw in the balance of this year free to new subscribers for 1894, besides their choice of one of the books offered to them on the 5th page of this paper. Then we also give a premium to a present subscriber who will send in new ones. It seems to us that our liberal offers this fall ought induce every one of our readers to aid in doubling the circulation of the BEE JOURNAL within six months. Why not help do this, and then see what a grand journal we can furnish to everybody when once the increased number of readers is secured? If each present reader would send only one new subscriber besides his or her own renewal before Dec. 1st, the thing would be done. Will *you* do it, reader?

◆

Dr. O. S. Brown, of Londonderry, Ohio, is a rising young physician as well as bee-keeper in his section of country. He had a fine display of honey at the Fair in Washington, O., recently, which attracted much attention. It was said by a local newspaper that the manner in which it was arranged was quite a novelty. There was in the center a large show-case neatly finished, and within was a honey-house all filled with comb and extracted honey in the various apartments, and on one side was a pyramid; from the base to the top was filled with the most excellent specimens of comb honey, and on the other was a cone with specimens of extracted honey. The exhibition also consisted of all the implements for extracting, and the management of honey.

We had the pleasure of meeting Dr. Brown and his wife at the Chicago convention. The Doctor is a "hustler" for keeping people "sweet" as well as cured.

◆

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us, as we use many more one-cent stamps than the two-cent kind.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Golden-Rod and Aster.

I send two samples of flowers. Which one is the golden-rod, the one with the long stem, or the one with the short stem? The short stemmed one is what I supposed to be the golden-rod.

Pioneer, O. CHAS. E. FALKNER.

Prof. Cook replies to the foregoing as follows:

The plant is one of the *Solidagos*, or golden-rods. They vary so much, and run so together that I am not sure of the species. It is hard to determine it with only the flower head. It is of small importance, however, as all are excellent honey-plants. The small plant is an aster. All the asters furnish nectar. The golden-rods and asters often give much fine autumn honey.

◆

Honey-Yield from Buckwheat, Etc.

I see the question asked and answered about how much honey one acre of buckwheat would yield. I have had some experience this year, having sowed one acre and watched it very carefully, and I failed at any time to find the bees working on it. At any rate, my bees stored no honey until golden-rod began to bloom.

I have one colony that has not started to fill the three outside frames at all on one side. If they do not before time to put them away for winter, would it do to put in a division-board between the full and empty frames?

I have another colony that has been cross all the season, but within two weeks they will go three rods away to sting me. This I am getting tired of. Will re-queening them make them better? And are there other remedies?

My harvest, so far this season, is two pounds from three colonies.

E. H. HALLETT.

St. Johnsbury Centre, Vt., Sept. 4.

ANSWERS.—Buckwheat is considered a very variable honey-plant, some years yielding abundantly and some years yielding nothing.

The lack of forage has something to do with the crossness of your bees, but you will probably find there will be no complete cure so long as they retain the same queen. Naturally one would think that no complete change of character would be found so long as any of the workers of the old queen were still living, but some think that the simple presence of the queen has something to do with it, and that you may look for a decided change of temper long before the bees of the old queen have died off. You may have a fair chance to test the matter. We know of no other cure but a change of queens.

◆

The Laying-Worker Nuisance.

How can I combat with what I may term our greatest drawback to successful bee-keeping here, viz.: the laying-worker plague? No sooner is a colony rendered, from some cause or other, queenless, than this miserable worker is there laying its thousands of eggs promiscuously all over, and destroying queen-cells as soon as they are formed. Rearing queens under these circumstances is next to impossible. How would it be to transfer the comb with queen-cells just when capped (for we do sometimes get as far as that before the laying worker is in evidence) to another colony, rendered expressly therefor queenless? From all I can ascertain, the laying-worker is a greater curse here than in any European country—perhaps because it is hotter. How is it in the warmer parts, such as Texas and California? Is it perhaps equally troublesome there? Can any of your readers say how it comes about that a worker should be thus able to lay eggs? What is about the most correct theory current amongst advanced apiarists?

S. A. DEACON.

Cape of Good Hope, Africa.

ANSWERS.—You're right in considering laying-workers great pests, and they are an especial pest to any one who attempts to write about them, for they seem to be different at different times and places. As to the primal cause of laying workers, we will make no venture to say. That lies in the domain of the theorist, and we'll not run the risk of a broken head, metaphorically speaking, by attempting to champion any one theory.

There seems to be no little difference of opinion among practical bee-keepers as to the operations of laying workers. Some seem to think that a single bee does the work, while others think their name is legion. Some say a worker is never known to lay while a queen, or the means of rearing a queen, can be found present. Others think that eggs from a laying-worker will not be found in a hive so long as worker-brood in any stage is present. On the other hand, others assert the presence of laying workers at the same time with a virgin queen.

Possibly you are not out of the way in thinking that the hot climate has something to do with it. Certain it is that in the North the majority of bee-keepers have very little care for anything of the kind.

Whatever may be the truth as to the points mentioned, the great thing is to know what will prevent and what will cure. As to prevention, that lies in the line of prevention of queenlessness. Vigorous young queens are desirable. If by any means a queen is lost, and the bees fail to rear a successor from her progeny, don't fail to keep them supplied with eggs or larvæ not more than three days old. Although they may destroy the queen-cells that you furnish them, they seem intent on rearing young queens from the eggs they have, albeit nothing but drones can result, and you will probably find that they will prefer worker-eggs, if present.

Some claim to cure the most aggravated cases of laying workers by droping in the hive, directly in the broodnest, a virgin queen that has just hatched. If this is successful in all cases, it is a plan easy of execution, and hatching queens may be found at almost any time during the working season.

Various other means of cure have been given, but in many cases it is easier to break up the colony and start a new one than to fuss with the faulty one. Here is a plan partly in this line: While bees are storing, there is little trouble in adding bees from one hive to another, especially if the latter is weak. So, start a nucleus with a laying queen, preferably close beside or standing over the colony with the laying worker, give to the nucleus a single comb with adhering bees from the faulty colony, then after a day or two add one or perhaps two more, then after another day or two the balance may be added. Your nucleus has thus become a full colony, and your laying workers have disappeared.

Please let us know what means you find most successful in your far-off home, especially as you seem to have such an abundant field for experiment in that line.

BIOGRAPHICAL

No. 53.—EMERSON T. ABBOTT.

The subject of our sketch and picture this week was elected President of the North American Bee-Keepers' Association at its recent meeting in Chicago. Of course all will want to know just "what manner of man he is," and so we are pleased to introduce him thus formally to our readers, though his name is not at all unfamiliar. Mr. Abbott has for some time been replying to the questions in our department of "Queries and Replies," and has frequently contributed articles to the columns of the BEE JOURNAL.

Without further introduction from us, we will let one who has known Mr. Abbott well for many years, tell some of the things he knows about him:

Emerson T. Abbott was born in Brown county, Ohio, on March 19, 1847. At that time his father was a farmer and stock dealer. His mother died when he was six years old, and from that time he knew nothing of a mother's care and love, only as a sacred memory.

There was nothing peculiar about his early life to attract attention, unless it be that he cried most of the time when he was not asleep, until he was about two years old, so he has been told by his grandmother. He presumes this was on on account of poor health, as he is very good-natured now.

After his mother's death, his father spent most of his time in travel away from home, and for ten years he saw but little of him, but he provided a home for his brother, two sisters and young Abbott, and made arrangements for them to attend school. Emerson was not very studious, and only learned what he was compelled to by force of circumstances. He was very fond of training animals, such as horses and dogs, to perform various tricks, and sometimes had quite a "circus" in their back yard.

Five years after his mother's death, his father married again, and a few year after they moved into Clermont county about 25 miles from Cincinnati Here he continued to attend school in about the same careless way as when younger. He also began to think of earning some money for himself. He kept poultry, had candy stands at county fairs, and finally took his father's spring wagon and went around the country buying up poultry, eggs, butter, etc., taking them to Cincinnati to sell. During his stay in Clermont county he joined the Christian church—that branch of it which is sometimes wrongly called "New Lights" in Ohio.

EMERSON T. ABBOTT.

Finally Mr. Abbott concluded that Ohio did not furnish opportunities enough for an ambitious young man, and, taking what money he could raise, went to Fountain county, Ind., and began work on a farm near Attica. He had just $1.50 left after reaching his destination.

About this time he saw how careless he had been about his early education, and felt keenly how much he had lost by not improving his opportunities. He began to read and study in good earnest, and soon felt that he knew enough to teach school. It did not require much knowledge to create such a feeling in those days. Owing to the fact that the County Examiner was a good-natured fellow, and that Abbott happened to get his good-will by answering his first question to suit him, he gave him a certificate. He secured a school and began to teach. This compelled him to study very hard, for he was bound to make a success of teaching, as he had grown tired of working on a farm by the month.

During all this time he had been an active member of the church of his choice, and an enthusiastic worker in the cause of temperance. He joined the Good Templars at Attica, on Nov. 20, 1868, and did his first public speaking in the cause of temperance.

Having made up his mind to devote his time entirely to the Christian ministery, in 1869 he attended the Western Indiana Christian Conference of the Christian church, and became a member of the same. Here he met Rev. Thomas Holmes, D.D., who was at that time President of the Conference, and also President of Union Christian College, a school belonging to the Christian people at Merom, Ind. He urged Mr. Abbott to come to Merom and further prepare himself for the work he had undertaken. He made arrangements to attend school the next year. He had but little means, but made up his mind to trust to Providence and hard work to sustain him

He began the college course, but found it very hard, as he had neglected to properly prepare himself for such studies. However, he succeeded in passing every examination creditably while he remained in school. He immediately began to preach twice every Sunday, as he needed all he could earn to pay his way in school. With preaching, bringing up his English, in which he was deficient, and his regular studies, he had enough to do. But his health was good, and he was happy and contented in his work, so got along all right.

Before he had finished his college course, he received a call from the Christian church at Enon, Ohio, which was accepted with the view of returning after he had earned some money to defray expenses, but he never went back.

His older brother, Rev. A. F. Abbott,

was pastor of a church in Eddytown, N. Y., where the Christian people have a school. He having decided to leave there, the church extended a call to Emerson T., and he left Enon very reluctantly and went East. While he was living in Eddytown, he married Miss Emma Ingoldsby, the only daughter of Prof. O. F. Ingoldsby.

Mr. Abbott's next charge was at Orangeport, N. Y. The climate here being too severe for him, he went, after one year, to Knoxville, Tioga county, Pa., and remained there for some time, preaching and lecturing on temperance. During what was known as the "Murphy move," he lectured almost every night, in addition to preaching two or three sermons on Sunday. Here he had the only "fight" he ever had in his life, if such an experience may be called a fight. A druggist of Knoxville became offended at some things he said about his making a barroom out of his store, and one day knocked him down two or three times in the street. Some friends came to his rescue, but he found himself badly bruised, and minus two of his front teeth. He soon recovered, preached the next Sunday without his teeth, and had the druggist arrested, who then paid Mr. Abbott $300, and all costs not to prosecute him any further. Mr. A. went back to his work again, having won many friends to the cause of temperance.

The next charge was at Schultzville, Dutchess county, N. Y. While preaching there Mr. Abbott made the acquaintance of the late Dr. Bellows, of New York city, Edward Everett Hale, Minot J. Savage, Robert Collier, and many other prominent Unitarian preachers. The result was that he became very much more liberal in his theological views. His next charge was an independent church at Union Springs, N. Y. Here his health broke down, and his voice failed entirely.

While he was at Schultzville, his brother was preaching in the Opera House in Poughkeepsie, which was only 16 miles away. They both became interested in the subject of bees, and began to keep them for their amusement and for study. They imported Italian queens, and also tried other races. While at Union Springs he had about half a dozen colonies of Italians, and became more and more interested in the subject of bee-culture, as his knowledge of the habits of the bee increased.

From Union Springs he went to Southern Georgia, and spent one winter. The next spring his wife, who is a music teacher, accepted a position in Starkey Seminary, at Eddytown, N. Y., and he returned, intending to accept the position of teacher of Botany and Natural Philosophy in the same school. For some reason the plan was never carried out, and he embarked in the subscription book business on a large scale, having sometimes as many as forty agents under him.

All this time he did not forget the bees. His brother having become pastor of the Unitarian church in St. Joseph, Mo., he urged him to come there and locate, so, in the fall of 1883 he came to St. Joseph, his present home. Here he continued to conduct the subscription book business, being State Manager for Harper Bros'. subscription books in Missouri and Kansas. This taking him from home so much, he concluded to try bee-keeping as a business. Some friends, who had means, and he bought about 200 colonies, and he took them out on a place near the city and began bee-keeping in good earnest. The next year he commenced dealing in supplies, and after a year or two he bought out his friends, and he now owns what is known as the St. Joseph Apiary Co. When this business was first started three of them were interested, but now it all belongs to Mr. Abbott and his wife, whom he has found an efficient helper in every enterprise in which he has been engaged.

Owing to an increase of other business, at the present time he only keeps bees to supply the demand for colonies.

During these years Mr. Abbott has written and lectured a great deal on the subject of apiculture. He has delivered lectures at Farmers' Institutes, and before the State Bee-Keepers' Association of Nebraska. In 1889, he delivered a lecture on the "Relation of Bees to Horticulture," and Prof. Bessey, of the State University read it for him, as he could not be present, before the State Horticultural Society of Nebraska, and they published it in their annual report of that year. He has been editor of the bee-department of the *Kansas Farmer* for some time, and the Superintendent of the bee-department of the St. Joseph Fair Association almost every year since living there.

He has never felt that it was safe for him to take up the work of the ministry again, but his health has greatly improved. He has been Superintendent of the Unitarian Sunday-school almost continuously since he went to St. Joseph, and his wife has been a teacher in the same, as they have affiliated with the Unitarians since they went West.

In politics Mr. Abbott is a Cleveland Democrat, and thinks the less we interfere with the business of individuals by making laws for or against them, the better it will be for the country.

In addition to the work referred to above, Mr. Abbott had a tilt last year with Prof. Evans, of Munich, Germany, in the *Popular Science Monthly*, refuting some nonsense the Professor wrote in the name of science about bees.

A Friend.

RANDOM STINGS

FROM THE STINGER.

They talk about a woman's sphere
As though it had a limit;
There's not a place on earth or heaven,
There's not a task to mankind given,
There's not a blessing or a woe,
There's not a whisper, yes or no,
There's not a life, or death, or birth,
That has a feather's weight or worth,
Without a woman in it.—*Selected.*

Our old friend *Gleanings* seems to be stung by one of my random shafts; it has squealed, and I am sorry for it. And all because I happened to state that it was something of an imitator when it announced that it was going to run a series of illustrations of bee-keepers' families. That editor thinks because The Stinger made such a statement that he must be "a new hand in the field, or else he is not acquainted with the back numbers of *Gleanings*." The Stinger is no "spring chicken," and for the information of *Gleanings* he will say that his style was acquired many years ago—some time before he ever heard of *Gleanings*, or any of its correspondents. Further, he will say that the style of paragraphs used in these Stings and in Dr. Miller's "Straws," was used by The Stinger from 10 to 15 years ago in two of the Eastern bee-papers; that some of those published in one of those publications were copied into the press of the country as jokes. (The Stinger tells this with reluctance, as he does not wish to blow his own horn, but he nevertheless desires to dispel the imputation of *Gleanings* that he is "a new hand in the field.") So far as copying is concerned, that charge cannot be laid to the door of the writer. That the first part of the title of the complained of column is concerned, it does look as if it got a-*stray*; and that none of The Stinger's work can be said to be a-*rambling* around the country hereafter, I shall see that a new label is put on the stings, and I feel confident that they will be none the less pointed when they go forth under a designation different from one bearing the impress of the "Home of the Honey-Bee," so-called.

The Stinger is pretty well posted with what has appeared in *Gleanings* since it was first published, as he has all, or nearly all, the issues of that excellent publication. He is also almost as well posted as to what has appeared in the American Bee Journal. He is aware of the fact that both papers have used portraits of prominent bee-keepers for many years; that the Bee Journal was a little ahead of *Gleanings* in using the first cut, as far as he can recall; that both papers used them only occasionally until the American Bee Journal commenced to use them in every number at the commencement of the present year. This, I think, *Gleanings* will not dispute.

Now, what The Stinger intended to say, and what he thought was plain enough to any one who understood the English language, was, that when our over-sensitive friend commenced to run a *series* of pictures of apiarists' families it was somewhat imitating this paper. And this statement I think *Gleanings* is too fair and conscientious to deny. Regretting that the editor above referred to tried to make a mountain out of a mole-hill, and that he placed himself in about the same situation that the fly did that is mentioned by Æsop as riding on the hub of a chariot, I will dismiss the subject, hoping at the same time that if the sting that *Gleanings* squealed about did it any great harm, it may be the means of taking some of the kinks out of it, as stings are said to be good for such things.

"I came, I saw, I conquered," said a bee as it drove a mighty King out of an apiary, when the latter approached too near a hive.

What a lot of valuable printer's ink those New York bee-keepers caused to be used up on account of the little item the editor of the American Bee Journal let slip into his paper one fine day. The fine display those Empire State apiarists made early in the existence of the Columbian Fair seemed to have stirred up the ire of the brethren that hail from other States. I was well pleased with the York State honey exhibit when I saw it, but I then thought that some other State would come in at the eleventh hour and knock the pins from under the former's show. That they have not done it is in a great measure their own fault. And though it has not been done, it does not prove that the Empire State is the best honey State in the Union. If I am not mistaken, the best honey-producing State in this country is not represented at all at the big Fair. But after all, is it not a small affair to fight about. What difference does it make which State yields the greatest amount of honey, so long as we know that it is produced under the "stars and stripes?"

A bee with its business end taken off is, beyond doubt, a very tame affair; the *American Apiculturist*, it seems to me, is a very tame concern with the best part of its name sunk into oblivion, if I may be allowed to use the word. Why Editor Alley should always prefer to write the name of the *Apiculturist* with the first three letters of the name, instead of all of the letters, is something that I cannot account for. It is true that it is none of my business, still, I cannot help but say something on the subject, and I hope the "*Api*," the next time I see it, will be something more than an abreviated, sawed-off and hammered down bee-keeper.

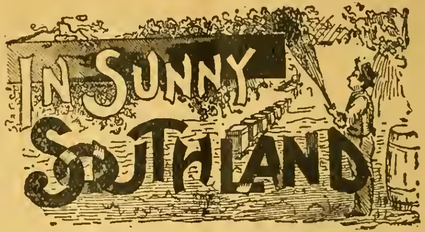
The Stinger does not give the following as gospel truth, but there is more truth than poetry in it, nevertheless:

Blessed is the man that sits down on a bee's sting, for he shall rise again.

The pen is said to be mightier than the sword; but sometimes a bee's sting is mightier than either the pen or the sword.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.



CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Cleaning Out the Bee-Moth.

While the bee-moth is practically no enemy to the honey-producer who understands his business, it is quite different with the queen-breeder. While I sit here and write this, the boys are "house-cleaning for the bees," as they call it. During the dry, hot summer through which we have just passed, we have had considerable trouble to keep our nuclei free from moth. We are to-day giving the apiaries a thorough going over, and cleaning as we go.

We have a large boiler filled with water, boiling all the time, and on the start we scrape and scald out a wheel-barrow load of hives, and then take the apiary row by row. We place each nucleus in a clean hive on just what combs they can well cover and protect. Some one may think this a heap of trouble and work for bee-keeping, but I tell you it is absolutely necessary, as moth-eggs and little spiders are in all the crevices and nooks, and a thorough cleaning and scalding kills all trace of either. Then, to preserve the extra combs we soak them in clear water for two or three hours, place them in the extractor and throw out the water, and hang in a dry place until wanted.

JENNIE ATCHLEY.

Moving Bees in Carload Lots.

Quite a number of readers are asking how I manage to ship bees in carload lots. Well, as I have considerable experience along this line, I will give it for the benefit of others.

First, if the weather is warm I only allow 7 frames of comb to a 10-frame Simplicity hive, and as 14 frames the width of my top-bars, will just crowd in close and tight, I place in one empty frame, then one with comb, bees, honey, etc., and so on until 14 empty and full frames are pressed in. So every alternate frame is empty. Then the frames need no nailing, or anything to hold them, and the empty frames afford ample space to keep the bees from smothering.

Then I tack wire-cloth over the entrance, and place the hives in lengthwise of the car, as that is best. I had as many empty hives as I had with bees in them, and I placed them in the car the same way as the frames—one with bees and one empty.

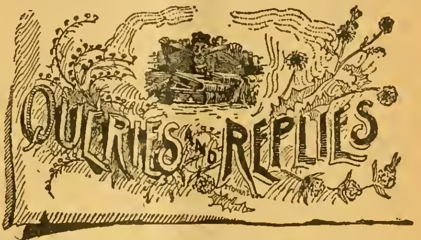
Now, in shipping bees in hot weather, you must be your own judge as to how much heat they will be likely to stand, and whenever they begin to get too hot, you can tell it by the odor. To reduce the temperature quickly, I throw water all over the car, hives and all, and it will surprise any one to see how soon the temperature can be brought down with water. I used 5 barrels of water in coming 400 miles, in the most intense hot weather we had this year, and the bees came through all right as to heat. The switchmen let a switch-engine run away, down an incline, right into one of my cars, smashing up 20 hives, and demolishing one end of the car. It did so much damage that they had to pull the car into the round-house for repairs, which took two or three hours. Otherwise my bees were in good condition when we reached Beeville, after being four days on the road.

If I move bees in winter, I put only wire-cloth over the entrance, and pack the car full. I used box-cars with doors in the ends and sides, all left open, which allows a draft through the car. I caught the idea of wetting the hives, by hauling bees on wagons. We haul bees whether hot or cold, or in any kind of weather, and our loss has been light for years. I suppose there might be better ways of moving, bees but I shall use my present plans so long as I am successful, or until I learn a better way.

I would rather move bees in moderately warm weather than when it is freezing, as comb becomes very brittle, and will break easily in freezing weather. But one thing is sure, it will not do to ship too many bees in one body in very warm weather. If they are heavy with brood it is better to put on the upper stories, and place half of the frames above, and fill the space as described before, with empty frames, or secure them well, and arrange the frames so that they will not beat or flop against each other. I know of nothing that serves better than empty frames, as they are a wedge clear to the bottom, and they stay in place so snugly without any other fastening.

Now, there are lots of minor points in loading a car with bees, especially in hot weather, and one who is in any way accustomed to the habits of bees, should know that bees with brood in all stages suffer for water, if not supplied, when confined in hot weather. I first tried water in combs, but as it shakes out so easily, and gets things in such a mess, I use a sponge, which gives satisfaction.

JENNIE ATCHLEY.



Time from Removing a Queen to the First One Hatched.

Query 894.—If, during the working season, I remove the queen from a strong colony, how long will it be before the first young queen hatches?—B. N.

Usually 10 days.—JAMES A. GREEN.

Usually 10 to 12 days.—M. MAHIN.

From 12 to 15 days.—EUGENE SECOR.

From 10 to 16 days.—S. I. FREEBORN.

From 10 to 12 days.—W. M. BARNUM.

About 11 or 12 days.—J. H. LARRABEE.

In the neighborhood of 12 days.—C. C. MILLER.

Ten days, unless there are cells under way.—P. H. ELWOOD.

Please consult your book on bee-culture.—DADANT & SON.

It may be but a few hours, and it may be 16 days.—A. B. MASON.

It all depends upon the condition of the colony.—H. D. CUTTING.

No one can tell with certainty—generally from 10 to 12 days.—R. L. TAYLOR.

About 10 days, occasionally a little longer, and very rarely a little less.—A. J. COOK.

Try it and find out. It will not take you more than 17 days.—Emerson T. Abbott.

If there are no queen-cells started containing eggs or larvæ, 12 days.—E. France.

Usually from 11 to 13 days. In extreme cases, from 9 to 15 days.—G. M. Doolittle.

On an average, in about 11 days. Eight-day queens are worthless, and queens that hatch after 14 days are poor things.—J. P. H. Brown.

That depends. The colony might have a queen-cell started. They might rear one from a larvæ three days old, or they might rear one from the egg.—Mrs. L. Harrison.

That depends entirely upon the condition of the colony. If they have sealed queen-cells, about 8 days. If no cells, then about 16 days—such queens are likely to be short lived.—C. H. Dibbern.

It will depend upon conditions; ordinarily from 10 to 16 days will elapse before the young queen emerges from the cell. The *egg* will *hatch* in a day or two after removing the queen, if a new egg is taken from which to rear it.—J. E. Pond.

No one can tell you exactly. It will be owing to the age of the larvæ the bees start cells over. Anywhere from 10 to 13 days, provided no preparation has been made or cells started before you move the old queen.—Mrs. Jennie Atchley.

That depends upon whether the bees make use of a just-hatched larva, or one several days old to develop into a queen. If an old larva is used, they may have a queen hatched in 10 days; but if the egg is just laid, the queen will not emerge until the 16th day.—Mrs. J. N. Heater.

No rule can be fixed. The first young queen may hatch in 9 days—possibly a few hours sooner, and more probably on the tenth day. On one occasion I removed the queen from a strong colony to get some cells built, and something prevented me from removing the surplus cells on the ninth day, and on the morning of the tenth day I found a young queen in a fair way of destroying the unhatched cells. She must have been several hours old. I once had a queen to hatch in 8½ days. It depends upon the age of the larva when the cell is begun.—G. W. Demaree.

Have You Read page 517 yet?

Contributions

De-Queening a Cure for the Swarming Fever.

Written for the American Bee Journal

BY ADRIAN GETAZ.

In my last article (see page 241) I related some experiments made with the self-hiver as preventing swarming. The result was that the swarming fever would persist as long as there was a queen or a queen-cell, or even unsealed larvæ or eggs in the hive, but after the colony had been hopelessly queenless a few days, all thoughts of swarming were given up, and the colony would go to work again regularly, even if left queenless.

This was new to me, and entirely unexpected. I knew that many of our leading bee-keepers remove their queens during the swarming season, but I thought it was simply to prevent the issue of a swarm, or, in other words, a preventive against actual swarming, instead of a cure against the swarming fever.

The next step was to find out among our bee-papers what had been already done in that line. Messrs. Doolittle's, Miller's and Manum's experiments are not very definite. They have very frequently removed the queens in order to save the honey that the rearing of "useless consumers" would have employed, and comparing the queenless colony to one working under normal conditions, found the queenless colony rather at a disadvantage. Frequently they cage the queens in the hives instead of removing them entirely. They seldom left the colonies hopelessly queenless, often giving them brood from other colonies, if necessary, rather than having them without unsealed brood, and thus missed the most important point in over-coming the swarming fever, that is, to have the colonies hopelessly queenless for a few days.

I will now quote from Messrs. Elwood and Aikin:

"Caging the queens does not cure the swarming fever. Taking them out does." (P. H. Elwood, in *Gleanings* for April, 1890, page 255).

"He who allows his bees to increase by natural swarming at their own good (?) pleasure may be called a bee-keeper; but it is only he who has learned to control increase that has earned the title of bee-master. When running bees for extracted honey, it is comparatively easy to control swarming; for by giving a large amount of room for both brood and honey, and extracting the old honey and afterward the new just before the main flow commences, there will be, usually, no attempt to swarm; with reasonable attention to extracting afterward. When comb honey is produced it is much more difficult to control increase. The well-filled brood-nest, so necessary to the successful production of comb honey, is also very favorable to the forcing out of swarms. Cutting out queen-cells, the withdrawal of brood, only delay, but do not prevent swarming, while there is danger of throwing the colony in the state known as 'swarming fever.' In this state work, to a large degree, will be suspended, and the bees show by unmistakable signs that they are dissatisfied. The bee-keeper will be similarly affected when in the midst of a honey-flow, he comes to look into the surplus receptacles.

"In every apiary there are some colonies that will work right along without any attempt to swarm. When no increase is desired, there is no need of molesting them, as they usually produce their full share of comb honey. All other colonies, as they complete their preparations for swarming, should have their queens removed with one or more combs of brood, and enough workers to protect it, and be placed in another hive or small receptacle provided for her. All queen-cells old enough to hatch within nine days ought to be removed. On the eighth or ninth day after, all cells should be broken, leaving the colony hopelessly queenless. In a week or ten days longer, the old queen may be smoked back into the hive." (P. H. Elwood, in *Apiculturist* for June, 1888, and *Review* for June, 1888.)

"Mr. Cushman asks if the great stimulus or increased working energy of the natural swarm is not lost by this method. In a contest with our queenless colony a natural swarm falls behind from lack of numbers before the expiration of three weeks. The natural swarm for the modern small hive, usually none too strong at the start, is rapidly losing, while the queenless colony is rapidly increasing in strength from hatching brood. In the experiences of Capt. Hetherington and myself, it has been noticed that the first eight days' work of the queenless colony, while rearing queen-cells, is the poorest. The second eight days' work when hopelessly queenless is much better. If during this second period, the colony is permitted to rear another crop of cells, the result will not be nearly so good, thus proving that a colony hopelessly queenless will work with greater energy than one of equal strength still possessed with the swarming impulse. The third period of eight days after re-queening, is when the greatest energy is shown. During this period, with the largely increased strength of the old colony, it far surpasses the natural swarm in results. The loose honey occupying the nearly broodless brood-nest is rapidly transferred to the surplus receptacles, and with honey coming in from the field, very satisfactory progress is made." (P. H. Elwood, in *Review* for April, 1889.)

"After May 1st we get bees, and keep getting bees. The more bees we get, the happier we are. About June 5th or 10th, I watch the honey-flow, and anticipate as nearly as possible when the flow will begin, but I keep getting bees, and, if possible, have every comb in each colony full of brood. If the flow is expected to begin June 15th, about June 8th or 10th I put a super on each colony. The bees loaf in it, and get used to it as part of their home.

"An apiary in such condition will (especially if the honey-flow comes suddenly) prepare *en masse* for swarming. Just as soon as the flow begins, I hunt out each queen and take with her enough bees and one comb of brood to make a nucleus colony. I then clip out every queen-cell that may be started. It won't do to miss one, even if it is necessary to shake the bees from every comb. On the eighth or ninth day remove every queen-cell from each colony, leaving them hopelessly queenless.

"It will answer to leave one cell, and allow the bees to re-queen, yet I prefer not to do so. The first objection is, that many of those cells are from three or four days' larvæ—we don't want such queens. The second is, that the swarming fever is not entirely off, and some colonies make a feeble attempt at swarming, when the young queen goes out to mate. For these reasons, instead of re-queening in this way, I leave the colony hopelessly queenless for four or five days before giving a cell. If left a week or more, laying workers begin to appear, and they are perfect nuisances." (R. C. Aikin, in *Review*, April, May and June, 1892. See also an article in *Review* for May, 1891, page 125.)

"The success of the apiarist lies in having only strong colonies to gather honey, the stronger the better. Concentrate that strength; instead of running the same bees in two hives, run them in one, and it brings in the surplus. It takes but few bees to run a brood-chamber and make a colony sufficient to winter over, but three to five times as many are needed before they can do good work in the supers." (R. C. Aikin, in *Review* for May, 1892.)

"This is not all theory with me. By observing Doolittle's teachings, to have a hive full of bees during the honey-flow, I have not failed, save once in 15 years, to get a fair crop of honey. I seldom get less than 50 pounds, and usually 75 to 100, and one season 227 pounds as an average per colony, spring count." (R. C. Aikin, in *Review* for June, 1891.)

Knoxville, Tenn.

◆

Again the Question, "Can Bees Puncture Fruit?"

Written for the American Bee Journal

BY E. S. LOVESY.

This is a question that is greatly agitating both the bee-keepers and the fruit-growers. If would be a relief to a great many people if some definite conclusion can be arrived at in this matter; especially will it be so to bee-keepers, if the bee is exonerated from the vicious attacks made upon it by fruit-growers and others.

Some of those people assert positively that the bees can, and do, break into the fruit. Mr. Stockwell, on page 759 of the AMERICAN BEE JOURNAL for June, 1893, says that they can, but don't. He says the fruit has no attraction for the bees, and asserts that they can eat hard wood; that he has heard them doing it, and that he had opened the hive and proved it.

I have known people that killed bees by closing up the entrance, and the hives had cracks in them, but not quite large enough for the bees to squeeze through. Now if they can so readily chaw hard wood, why did they not eat their way out, as the mice eat their way in? On the other hand, many bee-keepers and others assert just as positively, and just as vigorously, that bees cannot, and do not, injure fruit. The following is what the Indiana bee-keepers say in their convention:

"*Resolved*, That it is the sense of the Indiana bee-keepers, that it is an impossibility for bees to puncture grapes or injure them."

The following, which exonerates the honey-bee, was taken from one of our local papers:

THE HONEY-BEE EXONERATED.

"Exhaustive experiments have been conducted under the auspices of the department of agriculture to decide if the honey-bees are deserving of the severe condemnation received in some quarters from fruit-growers. Neither care nor expense was withheld. Hives were kept within a building from which the bees could not escape. In this grapes, peaches, pears and plums, varying from green to dead ripe, were placed. The bees were deprived of food, and left with the fruit exposed. Many came to the fruit, but never broke the skin; but when they found it broken they fed upon the exuding juice. They showed no tendency to use their jaws in cutting open a place.

"The test lasted 30 days; other bees were tried with similar results. In all cases food was taken only from fruit which had been previously broken. Consequently it appears that bees will not injure sound fruit. Professor Panton, of the Ontario Agricultural College, says that this is what might have been expected when the structure of the bee's mouth is considered. It is quite different in the case of wasps, which are supplied with jaws suitable to break into the skin, and in all probability they are the cause of the injured fruit upon which complaining observers have seen bees feeding."

Salt Lake City, Utah.

◆

The "Shoe-String Binder" for Preserving Bee-Papers.

Written for the American Bee Journal

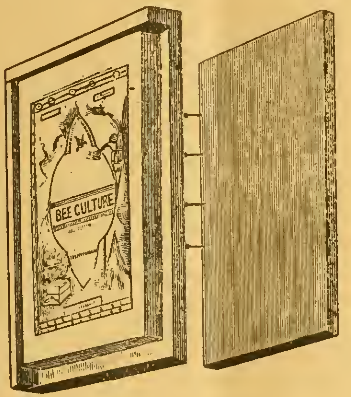
BY W. A. CAMPBELL.

In reply to a request, received by mail, for a description of the "shoe-string binder," which I referred to on page 184, it is with pleasure that I send Dr. Miller's own description in *Gleanings*, which will make plain the manner of its construction and use. One needs only to give it a trial to be convinced that it possesses all the valuable points the Doctor claims for it.

Doogan, Ga. W. A. CAMPBELL.

[The description of the "shoe-string binder," as given by Dr. Miller, is as follows:—ED.]

I don't know how many ways of binding I have used, some of them very satisfactory, but they have all contemplated leaving the pamphlets to be bound when the volume was completed; and before that time, too, often some of the numbers were mislaid, and then there was a big time hunting up and arranging. I tried the self-binders—got one for *Gleanings*, and one for the AMERICAN BEE JOURNAL. I used them less than six months, and they are for sale cheap.



The "Shoe-String" Binder.

The beauty of the arrangement I now use is, that each bee-journal or magazine of any kind can be bound as soon as received, with the previous numbers of the year; or you can do as I do—throw them into a drawer, and bind once a month or so. Indeed, two of the journals I get are not sewed together in any way, and one of them not even cut, in which case it is very handy to bind them before I cut the leaves, for it is about as handy to bind them as it is to hunt up a needle and thread and stitch them together.

I'll tell you how to make the binder: Of common ⅞ pine stuff, cut one piece 16x8, another 12x5, another 15⅛x1, and another 8x1. That's all the stuff. By looking at the cut you'll see how to put the pieces together. Nail the 8x1 piece on the end of the big board; nail the other stick on one side of the board (be sure to get it on the same side as it is in the cut), and you will thus have a kind of little box closed on two sides, and only one inch deep.

Now you are to make four holes in the other board, and that's the most particular part of the job. Make these holes 5/16 of an inch from the edge, the first one 2 inches from the end, then 1¾ to the next, then 2 inches to the next, and 1¾ to the last. It is of first importance that there be no slant to these holes, so take a try-square and make a mark clear around the edge of the board, where each hole is to be—that is, on the three sides, so the mark on one side will be exactly opposite the mark on the other. Draw a line on each side, 5/16 from the edge. With a very small bit bore a hole half way through on one side, and then bore clear through on the other side, thus making sure that each hole shall come out at the right place. If you haven't a bit to suit you, you can drive a nail in at each side to make the holes.

Now get a pair of long shoe-strings for each book you have to bind. Put the bee-journals on the big board, *right side up*, taking pains, as each one is laid on, to push the corner of the book close up in the angle; lay on this the smaller board, crowding its corner tight up in the angle, and through each nail-hole drive a two-inch No. 13 wire nail. Draw the nails with a claw-hammer. Push one end of a shoe-string through the hole nearest the top, making it go in from the same side the nail entered, and from the same side push through the other end of the same string. The two ends of the string can now be tied together, and another string must be put through the other two holes. From five to ten journals can be put on the board at the same time, and it doesn't matter if they are all of different kinds.

The expense for shoe-strings is very little. You can get them more than three feet long for a cent or two a pair. When the year is up, tie your strings together in a hard knot, cut them off, and then you can tie the cut ends together and use them over again.

C. C. MILLER.

Have You Read the wonderful book Premium offers on page 517?

The Apiarist's "Ten Commandments."

Written for the "Progressive Bee-Keeper"

BY GEORGE ROCKENBACH.

The following, whether they were written by some modern Moses and engraved on tablets of stone on Mount Sinai, or not, ought to be engraved in letters of gold in the memory of every apiarist in this broad land. I have been repeatedly urged to draw up a set of rules for the observance of the patrons of honey-production. I have preferred, like Moses, to give my inspiration in the form of a decalogue, without the observance of which no patron need hope to make the land flow with milk and honey:

1st.—Thou shalt not starve nor stint thy bees for food, nor give them poor, innutritious or unwholesome food of any kind whatsoever, but an abundance of that which is palatable and good for their system, to retain full strength for the harvest; for I have given them unto thee an inheritance and a blessing; and a woe shalt come upon him who offendeth against them, for his bank account shalt wither away and become as nought; and he shalt be a bankrupt in the land.

2nd.—Thou shalt not overdose thy bees with smoke; and the water that they drink shall be pure water that bubbleth in the crystal fountain, or runneth in the brook, for if thou by sloth compel them to quench their thirst at mud-holes and stagnant pools, there shalt a day overtake thee when thy goods shalt be refused at the hands of the market man, and he shalt set his mark upon thee, and wilt have no further dealing with thee.

3rd.—Thou shalt give thy bees ample shade in the summer and warm shelter in the winter, and the latter shalt be kept clean and dry, and be withal well ventilated, so that it shalt not become a stench in the nostrils of the buyer, and he shalt turn away from thee with contempt.

4th.—Thou shalt not sell, or offer for sale as food for men, dark honey, or adulterated honey, lest the magistrate summon thee to answer before him.

5th.—Thou shalt be clean, for, lo! it standeth an everlasting truth that cleanliness is next to godliness; and if thou keep thy fingers clean, and thy extractors and tanks washed and scalded, and everything about thee neat and clean, it shall become a mark of distinction unto thee, and thou shalt be favored before thy brethren, and shalt increase in possessions and honor.

6th.—Thou shalt ripen thy honey as soon as drawn from thy extractor, by the best appliance at thy command—not by putting glucose or sugar in it, for that would be a violation of both the law and commandments—but by bringing thy honey in contact with the rays of the sun and the hot atmosphere, so that it may become like molasses, which has a wonderful virtue to prevent souring and tainting. It is shrewdly suspected by some of the prophets that airing honey is of value.

7th.—Thou shalt not commit adulteration, by adulterating thy honey with burnt sugar or glucose, or any ingredient or compound whatsoever; nor by feeding vile stuff to thy bees, nor by any mean trick, device or process, known or unknown to be naturally depraved. The laws of the country, the health of the community, and the lives of the people, especially of the little ones who are likened to the Kingdom of Heaven, cry out against this unpardonable sin.

8th.—If thou desirest to be successful, buy thy bee-palaces in the winter, and make all other necessary arrangements. Thus, while the sluggard sleeps, and the indolent bakes his face by the kitchen fire, waiting for "something to turn up," thou shalt have made arrangements to reap the golden harvest, if one should come. Then thou canst go forth in the sunshine of the land, and great blessings shall befall thee.

9th.—If thou wouldst prosper in all thy ways, thou shouldst be a lover of bee-literature, and shouldst become acquainted with all the new devices whereby labor may be performed more easily, and greatly facilitated; and thou canst attain this knowledge only by a careful study of the bee-papers with which the land aboundeth. Therefore, neglect not to subscribe, straightway, for the bee-paper, or papers, which thou art sure to need in thy business; and blessings shall follow thee in all thine undertakings.

10th.—In this progressive day and age thou shalt not rely upon "the wise men of the East" too much, for thou shouldst remember that many wise men have gone West, and are now in thy midst. Hence, when thou art in need of information or supplies for thy apiary, thou shouldst consult with the prophet nearest thy home. Thus, much vexation, time, and heavy transportation charges will be saved by thy wisdom;

and thy pocket-book shall be filled to overflowing with silver and gold. Yea, verily.

11th. Under the new dispensation I add this 11th Commandment: Thou shalt love thy neighbor as thyself, and keep the fall honey at home for the purpose of spring feeding, and that the apiarist and all who labor with him in the apiary, may rest and worship according to the dictates of conscience on every Sunday; therefore, shalt thou meet the requirements of the lives, and improve the morals of a large and constantly increasing class of useful citizens.

By faithfully observing these commandments, the apiarist shalt keep a clean conscience, avoid annoying and expensive prosecutions, retain the respect of his neighbors, secure a competency of this world's goods, live a peaceful life, and in his old age approach the bed of death "like one who wraps the drapery of his couch about him, and lies down to pleasant dreams."

Austin, Minn.

Ranchmen as Bee-Keepers--Specialists.

Written for the American Bee Journal

BY J. D. ENDICOTT.

On page 405, Mr. T. I. Dugdale seems to advance the idea of specialties and specialists in all branches of business. According to his theory, what business has a farmer with cows if not with bees? He perhaps will say he needs the cows to furnish milk and butter for his family. Yes, and for the same reason he keeps bees, that he may have honey for his table.

Why not let the dairyman monopolize the butter and milk business, and all other branches of business be handled by specialists, and let the farmers simply raise their crops, and not be meddling with anything else? There is not one farmer in fifty that attends to his cows on the scientific plan, any more than he does to his bees.

I have a very good opportunity to learn how farmers actually manage bees—being a county bee-inspector, I know whereof I speak. I can give the names and addresses of a host of bee-keepers that run large ranches and keep bees, and make a success of both. 'Tis true our ranchmen are a very energetic class of men—that may account for the difference in the men of the two States.

If Mr. Dugdale were a dealer in bee-supplies, I dare say he would look at this matter in a different light. "It makes all the difference in the world whose ox is gored."

Abbey, Colo.

Longevity in Different Races of Bees, Etc.

Written for the American Bee Journal

BY JAS. R. BELLAMY.

I cannot hold my peace once more because some of the experts in answering Query 891, did not suggest wanting an experiment to test the value of longevity in different races of bees, or bees from different queens. I have experimented a little with great results, and often thought of advertising for queens that were *positively* 4 or 5 years old, and I would breed from them if doing good laying at such age, and if good in other ways and quiet. I feel that I know more in this line than I can tell. I have had hives with 8 frames of brood full from April until August, and good looking bees and queens, but would not give a swarm or store honey, or be overcrowded with bees; and others, with the same amount of brood in the same time, would have more than three times the quantity of bees and honey in August.

For some time I thought that careless bees from other hives joined with those that became so extra good, but this year I have proved that such is not the case, and that the bees from certain queens live and work nearly twice as long as others; that is, have better constitutions. Look at certain breeds of horses—some are useless at 17 years, others are good at 22 years. Now, when bees become useless from age, or any cause, the others put them out as they do drones, and when bee-keepers see them putting the old bees out, they think that it was a robber that got in, but if looked at closely, it will be seen that the bee put out is very small, as are all old bees, and dark. This difference in size leads the keeper to think that they are different bees, from some bee-tree, or other hive.

JOYS AND SORROWS OF BICYCLING.

Then, listen to *Gleanings* telling all the joys of the "wheel." Now, "Mr. *Gleanings*," I have seen a great many men and boys buying wheels, and in three months sell them at half price, or want to; and they tell the joys of it particularly before they get it sold. This is what prevents me from getting one. One joker has said that it is good, healthy exercise to carry them to the repair shop.

Now, *Gleanings*, please tell us the "sorrows" of it—such as "head wind," sudden rain making wet roads, fright to horses, repairing, causing humpbacks, etc.

"PULLED" QUEENS UNSATISFACTORY.

Then, "pulled" queens don't suit me. I tried them three years ago. Some would be all O. K., and I think there were some that would have hatched perhaps in 10 minutes, if let alone. Now this year I reversed it, and when I saw queens hatching and putting out their tongues through the first hole they gnaw, I put them back some from hatching, by putting wax over the point of the cell, as the bees do if they cannot swarm when the second young queen is hatching. I think that queens that are kept in their cells for some time after they would go out, have more vigor when hatched, and afterwards. Try breaking the egg shell to let a chicken out, and see a "pulled" chicken.

API-PHRENOLOGY—A DRONE'S BRAINS.

Dr. Gehring did not tell us the "vitativeness" of the drone, and I have noticed one thing that leads me to think that the brains of the drone are not all in his head. Once I beheaded a drone, and in 24 hours afterwards I saw him standing on his feet. I turned him over on his back, and he would turn right over and stand on his legs again. I turned him several times, and he would right himself. So he had knowledge in the body without the head. I have often put a drone-comb containing larvæ away in the cellar for three days, to starve it so the bees would clean it out, and found them alive after three days. Others have reported the same to me after six days' starving.

WRITING FOR BEE-PAPERS.

This is too expensive a job for me. When I wrote last spring in regard to "Flaring comb baskets for extractors," I felt paid when Dr. Sayler saw it was good; but after his recommendation came out, it was copied into newspapers here, then manufacturers of extractors wrote, and sent workmen to learn the right slope, etc., which cost me valuable time, and money in postage, to explain. If I had been in the supply trade I could have had pay for my trouble, in selling extractors or baskets. Mr. Muth should have explained this "sloping basket" idea, as I think he sells them. Perhaps modesty prevented him. Like myself, not recommending cedar for hives because I had it to sell.

Black Bank, Ont.

The Prevention of Second or After Swarms, Etc.

Written for the American Bee Journal

BY R. DART.

If there is but one part of bee-keeping that I have learned to handle to my perfect satisfaction as a bee-keeper for 50 years, it is to prevent second or after swarming. It is from the Heddon plan, only I go farther than he recommends.

Hive the first swarm and place it on the stand of the old hive. Turn the old hive around, facing to the back of the new hive close by the side. The third day from swarming turn the old hive around facing the same way with the new hive. The third or fourth day the young will begin to fly from the old hive; when well out, turn the old hive around facing the back of the new hive. The young bees out will all pass into the new hive.

The next day turn the old hive around fronting the new one. Repeat this turning around of the old hive every day you see the young bees flying to the seventh or eighth day from swarming, then put the old hive on a new stand, and your swarming is through with for that hive. In 30 colonies handled by this plan, not one cast a second swarm. The old colonies built up fast, and gave me double the honey I ever had from old colonies that were allowed to swarm themselves down to nothing.

Bee-keepers, this is not half the work you may think it is. Just give your bees a little attention in swarming time, and see if it does not pay you well to prevent this after-swarming.

Now, who can prevent first swarming, without too much manipulation, in the honey harvest?

My honey crop is a very large one, and the best quality I ever saw—not 100 pounds of fall honey—all white clover, and in small sections. There is very little call for honey, and the price is away down. I shall put my crop on the home market at 10 cents a pound. It would not bring me that to ship to large cities.

Ripon, Wis., Oct. 8, 1893.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Nov. 2.—Connecticut, at Waterbury, Conn.
Mrs. W. E. Riley, Sec., Waterbury, Conn.

Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

Dec. 19, 20.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

Pres.—Emerson T. Abbott.....St. Joseph, Mo.
Vice-Pres.—O. L. Hershiser....Buffalo, N. Y.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

OUR
LETTER BOX
REPORTS & PROSPECTS &c

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Those Untested Queens.

On page 463 Mr. H. W. McCombs complains of a queen-breeder sending out hybrids and blacks instead of Italians. If I understand Mr. McCombs, the queens were discovered to be hybrids and blacks on their arrival. The strange part of it is to me, how Mr. McCombs, or any one, could tell what they were until they were tested. I never could tell anything about them until their brood commenced to hatch. Some of the yellowest queens will produce very dark bees, showing they were mismated. Then I have some very dark queens that produce very fine 4-banded bees. The largest queens I ever saw were reared from a mismated mother. It is probable that the queens were judged by their attendants. Queen-breeders make a practice of buying cheap bees to make their nuclei, instead of cutting up fine Italian colonies; that would account for the different colored workers.

There are very few queen-breeders that will send out a mismated queen for an untested queen. If there are any that do so knowingly, they should be reported; but be sure that you are right before making complaint to the paper. Always give a chance first to the parties from whom you bought the queens. Charles White.

Aurora, Nebr.

Results of the Past Season.

I have 40 colonies of bees to winter. I started with 16 in March, 1893, two dwindled away, and one did not give any surplus; the balance (13) gave me 604 pounds of nice clover honey in one-pound sections. I bought 14 colonies this fall. My increase was 18 swarms, a number of which I united.

G. D. Littooy.

Tacoma, Wash., Oct. 11, 1893.

Poor Season for Honey.

This has been the poorest season for honey since I have kept bees. They did well the forepart of the season, but the drouth set in earlier than usual, and lasted so long that some colonies did not gather enough honey to carry them through the winter. I did not get an ounce of honey this season. J. W. Matheny.

Argos, Ind., Oct. 14, 1893.

Cure for Throwing Out Brood.

On page 396 is something about bees throwing out their brood while having plenty of stores in their hives. All my colonies treated me the same way. The cause I believe to be this: The weather was too cold for about two weeks, and they gathered no honey, and before they would draw on their stores the little misers would rather pull out their brood. The cure I had was to give each colony a little feed once a day until the weather permitted them to go out and gather for themselves. There is plenty of golden-rod and other wild flowers at present. They have acted like that before when the weather kept them in-doors, and the feed always cured them. I would like Mr. Walker to try it and see how soon they stop it.

Hamilton, Ont. J. Somerville.

The Value of the "Bee Journal," Etc.

I consider the American Bee Journal too valuable a paper to do without, as I am satisfied it would be cheap to a beginner at $5.00 a year, if he would read it carefully and follow the instructions given therein. When I say beginner, I don't refer just to one who has never kept a colony of bees on his farm before, but I mean also those who have kept them in a rather careless way for years. To the latter class it would be safe to say that the Bee Journal would be worth its weight in gold. Now I don't write from hearsay, but from personal experience, as I had kept bees for several years and did not receive a cent's worth of profit, for the simple reason that I hadn't read any books or papers, therefore I hadn't any knowledge of the honey-bee—only hearsay from just such bee-keepers as I was then myself, and such information did me no good, I am sure. But when I commenced reading on the subject of the honey-bee, I became familiar with the best writers, and followed their instructions, and thereby received information from the best practical bee-keepers of the day, which is far better than the knowledge that I received before I began to read the BEE JOURNAL.

Last spring I had 18 colonies of bees, and obtained 1,050 pounds of fine comb honey, and about 200 pounds of extracted, besides increasing my apiary to 31 colonies. I received from 10 to 14 cents per pound for the comb honey, and 10 cents for the extracted. I have as good a strain of Italian bees as can be found in this country, that I purchased 6 years ago. I don't know of a black colony in this section of the country, therefore they are as pure as they were when purchased. CHAS. E. FALKNER.

Pioneer, Ohio, Oct. 3, 1893.

Not a Large Crop of Honey.

Bees are very short of stores this fall, and the honey crop is not a large one.

G. W. FASSETT.

Middlebury, Vt., Oct. 9, 1893.

Importance of Uniting Weak Colonies.

Bees in this section have gathered only about 20 per cent. of a full crop, owing to the continued dry weather, but are going into winter quarters in better condition than last fall. Most of the bees here are Italians, people thinking them preferable to blacks. One great trouble why bee-keepers fail to make a success of bee-keeping is in neglecting to unite all weak colonies. Some think if they fail to have a large number of hives with only a handful of bees in each, that they get more honey from them than from the same number of bees in two or three hives; but it is not so. They must remember that in "unity there is strength," and that it is not the hives which gather the honey.

STANTON E. HITCHCOCK.

Troy, Vt., Oct. 9, 1893.

No Surplus Honey this Year.

The bees did not store a pound of surplus honey in this neighborhood this year, and most of my neighbors lost from two-thirds to all of their bees last winter—I lost only two colonies. White clover bloom was very plentiful—the ground was just white with it for two months—but it seemed to yield only enough nectar to keep up brood-rearing; then it set in dry weather, and that ended our chance for any honey this year. A good many of my neighbors that have any bees left are killing them and taking what little honey they have. I have filled several hives with bees that have been given me for driving them out, and I could get many more if I wished them, in the same way, but it takes too much to feed them up for winter, though I dislike to see them killed. I think the BEE JOURNAL is much improved. L. A. WEBSTER.

Strafford, Mo., Oct. 8, 1893.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers at the club prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Review	2 00	1 75
Canadian Bee Journal	2 00	1 75
The Apiculturist	1 75	1 65
Progressive Bee-Keeper	1 50	1 30
American Bee-Keeper	1 50	1 40
Nebraska Bee-Keeper	1 50	1 35
The 8 above-named papers	6 25	5 25

Convention Notices.

CONNECTICUT —The next meeting of the Connecticut Bee-Keepers' Association will be held at the Capitol at Hartford, Conn., on Thursday, Nov. 2, 1893, at 10:30 a.m.

Waterbury, Conn. MRS. W. E. RILEY, Sec.

ILLINOIS.—The Illinois State Bee-Keepers' Association will meet at Springfield, Ill., on Dec, 12 and 13, 1893, in the Senate Judiciary room at the State House. The Illinois State Grange, the Illinois State Horticultural Society, and the various Stock Breeders' Associations meet at the same time, and in the several rooms of the State House. Railroad fare has been secured on the Certificate plan, 1⅓ rate. Those attending, to get the rate, must pay full fare going, and get a Certificate of the agent where the ticket is purchased. Rates at the hotels are secured at $1.50 per day, where two or more days' board is paid. The Horticulturists and Bee-Keepers are to make their head-quarters at the Hotel Palace. Come, everybody, and have a good time.

Bradfordton, Ills. JAS. A. STONE, Sec.

* * *

Honey as Food and Medicine is just the thing so help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the BEE JOURNAL for description and prices.

* * *

Great Premiums on page 517!

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, in Washington, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

CHICAGO. ILL.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, 5@7c. Beeswax slow at 20c.
Sept. 14, J. A. L.

CHICAGO, ILL., Sept. 15.—The receipts of comb honey have not been in excess of the demand up to this date. We have yet very little surplus. Prices remain at 15@16c. for the very best grades. Discolored combs and the darker grades generally are slow of sale at about 14c. Our sales, however, are chiefly at 15c. We consider this about the best season of the year for shipping and selling comb honey. It stands transportation better than it will when the cold weather comes, and people buy it in larger quantities than they do later in the fall. Extracted is nominal, some sales being made all the time at prices ranging from 6@7c., with some other dark goods a little lower. Beeswax salable at 22c. We would advise those having honey ready to ship. to send it forward during this month, or early next. R. A. B. & Co.

ST. PAUL, MINN., Oct. 9.—Our market for comb honey is improving, and receipts since our last report have moved off fairly well, prices unchanged. We quote best white comb honey 14@15c. for California. Extracted lower under free offerings from the coast; we quote 5½@6c. for white or amber in five-gallon tins. S. & A.

NEW YORK, N. Y., Oct. 10.—Comb honey is in fair demand for fancy stock. Supply is large. We quote: Fancy white, 14@15c. for 1-lb. and 12@13c. for 2-lb. sections. Demand for off grades is very light and slow selling at 12@12½c. for 1-lb. and 11c. for 2-lb. sections. Buckwheat scarce and in good demand at 11@12c. for 1-lb. and 10c. for 2-lb. sections.

The market on extracted is quiet, with plenty of supply. We quote: White clover and basswood, 6@6½c.; California, 5½@6c.; Southern, 65@70c. for choice and 55@60c. for common, per gallon. Beeswax is in fair demand at 23@25c. H. B. & S.

BOSTON, MASS., Oct. 9.—We quote honey as selling fairly well. Best white at 15c. Extracted, 6@7c. Beeswax, 25@28c. B. & R.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

KANSAS CITY, MO., Sept. 14.—Demand is good. Supply light. We quote: 1-lb. comb, 16c.; light weight, 14c. Extracted, white, 7½c.; amber, 6½c.; dark, 5@5½c.
Beeswax, 22@25c. H. & B.

ALBANY, N. Y., Oct. 10.—Honey market is firm for all grades of comb honey, and we can sell readily to good advantage, more than receiving. Extracted honey slow. We are selling choice white comb at 15@16c.; mixed, 13@14c.; dark, 11@13c. Extracted, white, 7@8c.; mixed, 6@6½c.; dard, 5½@6c. H.R.W.

CINCINNATI, O., Oct. 10. — Arrivals are large of extracted honey, with a slow demand at 5@8c. a lb. Arrivals of comb honey are fair, with a fair demand at 14@16c. a lb. for best white, in the jobbing way.

Beeswax is in fair demand with plentiful arrivals at 20@23c. a pound for good to choice yellow. C. F. M. & S.

CHICAGO, ILL., Oct. 18.—The limited demand for comb honey does not permit our quoting it above 15c., with no sales of white selling below 14@14½c. The stock that we have received this year is of fine quality. Honey should be sent to market at once, so as to be received before the cold weather sets in. Extracted selling at 6@6½c.
Beeswax, 23c. S. T. F. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

Read our great offers on page 517.

SAY, FRIENDS,

WHEN RENEWING YOUR SUBSCRIPTION

To the "American Bee Journal,"

Save Money by taking advantage of one of the Valuable Clubbing Offers we give below, and thus secure a Good Book.

The "Bee Journal" one year and your choice—both for the price named!

HERE IS THE LIST FROM WHICH TO SELECT:

For Either Old or New Subscribers!

Name of Book.	Author.	Club Price.
Langstroth on the Honey-Bee	Revised by Dadant	$2.20
A B C of Bee-Culture	A. I. Root	2.10
Bee-Keeper's Guide	Prof. A. J. Cook	1.75
Bees and Honey (Cloth bound)	Thos. G. Newman	1.65
Bees and Honey (Paper bound)	Thos. G. Newman	1.25
Scientific Queen-Rearing	G. M. Doolittle	1.65
A Year Among the Bees	Dr. C. C. Miller	1.35
Advanced Bee-Culture	W. Z. Hutchinson	1.30
Amerikanische Bienenzucht (German)	Buschbauer	1.75
Bienen-Kultur (German)	Thos. G. Newman	1.30
Rational Bee-Keeping (Cloth)	Dr. John Dzierzon	2.00
Rational Bee-Keeping (Paper)	Dr. John Dzierzon	1.75
Winter Problem in Bee-Keeping	G. R. Pierce	1.30
Thirty Years Among the Bees	Henry Alley	1.30
Bee-Keeping for Profit	Dr. G. L. Tinker	1.15
Convention Hand-Book	Thos. G. Newman	1.15
Poultry for Market and Profit	Fanny Field	1.10
Turkeys for Market and Profit	Fanny Field	1.10
Capons and Caponizing	Dr. Sawyer & Fanny Field	1.15
Our Poultry Doctor	Fanny Field	1.15
World's Fair Women Souvenir	Mrs. J. D. Hill	1.50
How We Made the Old Farm Pay	Chas. A. Green	1.15
Green's 5 Books on Fruit-Culture	Chas. A. Green	1.15
Garden and Orchard	Chas. A. Green	1.15
How to Propagate and Grow Fruit	Chas. A. Green	1.15
Rural Life		1.10
Emerson Binder for 52 Numbers of the "Bee Journal"		1.40
Commercial Calculator, No. 1	C. Ropp	1.25
Commercial Calculator, No. 2	C. Ropp	1.50

For Either Old or New Subscribers!

Descriptions of the above Books, on the 3rd page of this copy of the "Bee Journal."

GEORGE W. YORK & CO.,
56 Fifth Avenue, - - - CHICAGO, ILLS.

ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., NOV. 2, 1893. NO. 18.

EDITORIAL BUZZINGS

Our Stinger Not a Chicagoan.—We notice in one of our exchanges that "The Stinger," who gets his "Random Stings" in the BEE JOURNAL now-a-days, is supposed to be a Chicagoan. This is a mistake. "The Stinger" lives more than 40 miles away from Chicago, and does not get into this city oftener than about once in 2½ life-times. No, no; Chicago has nearly everything under the sun, but she hasn't a single "stinger," as has another town, for The Stinger is *single*, or at least was the last time he was *stinging*.

◆

Prof. Cook and family leave for Pomona, Calif., about Dec. 1st, where they expect to locate permanently. The Professor's Eastern friends will likely hear some good things about him and his new home as soon as he gets settled, and has the time to tell us about them. The BEE JOURNAL don't propose to lose sight of Prof. Cook, no matter where he goes. Oh, but won't those California folks feel big, when they once have the Professor and his excellent family located among them? Well, we couldn't honestly blame the Californians any, for we don't want to be selfish, and especially after having him almost in our midst for so many years.

Father Langstroth is heard from again. Immediately after the North American convention, we sent him a check, and in acknowledging it he wrote as follows:

MR. GEORGE W. YORK.

My Dear Friend:—You can easily imagine how painful a thing it is for me to have my straightened circumstances brought before my bee-keeping friends. I have been confined to the house almost all the time for the last year, and in addition to my old head trouble, I have suffered much from swelling in my limbs. I desire, through you, to be affectionately remembered to all who have contributed to my relief.

Friend York, I want you to know how much I have been helped. It has all been needed for fuel, clothing, and things absolutely necessary for comfort; without it, I do not see how I should have been able to provide them. Yours affectionately,

L. L. LANGSTROTH.

Dear friends, don't you think, after reading the foregoing letter, that the very least any of us can do for Father Langstroth, is too see that he is supplied with the necessities of life, during his last years? If you have not yet contributed anything to the "Langstroth Fund," why not do so now, or soon, so that he may receive regularly from $10 to $25 a month? If you do not care to send it to us first, why mail your contribution to him, at 120 Ford St., Dayton, Ohio. We do not here plead for ourselves, but for him who has bestowed an everlasting blessing upon apiculture, and made possible the advanced bee-keeping of to-day.

◆

A Railroad Accident on the morning of Oct. 20th, near Battle Creek, Mich., resulted in the death of some 30 people, among whom, we learned with sadness, were Mr. and Mrs. Chas. C. Van Deusen, of Sprout Brook, N. Y. Mr. Van Deusen was a son of the senior member of the fine firm of J. Van Deusen & Sons, the well-known flat-bottom comb foundation manufacturers. All the bee-keeping world will read this with sincere regret, and extend to the stricken relatives their most earnest sympathy in this very sad bereavement.

Mr. and Mrs. Van Deusen were on their way to visit the World's Fair, when through some carelessness of the railroad employees they were overtaken by death when two trains met in the collision referred to. Mr. V. was injured, and died within an hour or so after the accident, but his wife was burned to death in full view of those who tried in every way to rescue her, but could not, as she was pinned in the broken cars. The account of her martyr-like death, as portrayed by the daily newspapers, is too horrible for reproduction here. When she saw that death was inevitable, she gave one agonizing wail, and then her woman's weakness gave way to her martyr strength. "I can die; oh yes, I can die if I must," she said. "I am a Christian," she also said, and a moment later her voice was raised in prayer. Oh, it was a terrible death! Strong men wept at the heart-rending sight that they were so powerless to prevent. But at last the praying lips were stilled, and the soul of the brave Mrs. Van Deusen passed into eternal glory.

Ah, scoffers at the true Christian's faith, hide your heads in shame, and pause ere you again speak lightly of that which helps martyrs to bear up under persecution, and even welcome death by the torturing flames. Our brother and sister were called very suddenly and unexpectedly from their earthly existence, and none of us know when we, too, may be summoned. Oh, that we all might have that trusting faith, and abiding "hope" which we all can "have as an anchor of the soul, both sure and steadfast, and which entereth into that within the vail."

The Van Deusen comb-foundation exhibit at the World's Fair was at once appropriately decorated in emblems of mourning, in memory of the departed member of the firm.

* * *

Not Subsidized!—Because we took occasion to speak favorably of a certain prominent firm's production recently, since then it has been hinted that the AMERICAN BEE JOURNAL was perhaps "subsidized" by that firm. Not much! The BEE JOURNAL is as free as anything can be, to express its approval or condemnation, just whichever it sees fit to bestow. Neither is the BEE JOURNAL published in the interest of any particular bee-supply firm. It is here to furnish purely bee-literature, and to represent the best interests of its partners—the regular subscribers. That its usefulness may be greatly extended, let all turn in and aid in increasing its number of weekly readers. With a list of 15 or 20 thousand annual subscribers, what a power the BEE JOURNAL could be! If you, brother or sister, would like to know more definitely what kind of "a power" we have in mind, just begin to help make it possible to realize our ideal, by securing the above number of subscribers, and then you'll soon see the "power" manifesting itself.

* * *

Apicultural Experiments. — On page 563 we give another of the interesting reports prepared by Hon. R. L. Taylor, of the Michigan Apicultural Experiment Station. This time it is about the value of comb foundation in the brood-chamber, and shows that Mr. Taylor has made some exceedingly fine experiments on this subject.

We believe that so far we have published every report of the experiments made at the Michigan apiary, that Mr. Taylor has written. Besides, we also reprinted an article written by him for the *Grange Visitor*, a rural periodical published in Michigan. As Mr. Taylor's work is paid for out of public money, his reports belong to the public, or to all the bee-papers that care to publish them.

At the recent North American convention, during our unavoidable absence from a portion of the first session of the second day, it seems that Mr. Taylor advised everybody to subscribe for the *Bee-Keepers' Review*, as it contained all of his reports of experiments. At least so we were afterward informed. Had we been present at the time, we could, in justice to the BEE JOURNAL, have reminded the convention that this paper had not only so far printed all his reports, but that it expected to continue to do so. We were surprised that Mr. Taylor could have so thoughtlessly injured the *Review*, whose editor, we are very certain, would not wish its friends to take any undue advantage in order to advertise it. We mention this here, as we were not present when Bro. Taylor made his uncalled-for remark, and that such an unkind thing may not occur again. *We* most assuredly would not thank any of our would-be friends to advocate before a public gathering of bee-keepers, the taking of the Bee Journal. It could but result in injury to our journal, and be a gross injustice to our brother editors and their papers. Private recommendation, however, is all right.

We mention this matter in all kindness, for we feel sure that Bro. Taylor's intentions were highly commendable, and that he did not contemplate the ill-effect that we learn was visible.

Convention Photographs.—Bro. Hutchinson's love for his new hobby, photography, is so great that it led him to bring his camera with him to the late convention in Chicago, where he made several photographs of the bee-keepers present. Of these, two are fairly good, showing most of the faces quite clearly. One of the pictures is the interior view, showing the bee-keepers in the hall, and the other is the group that gathered on the steps of the hotel towards evening on the first day of the convention. He can furnish these photographs at 50 cents each. He also made excellent photographs of nearly all of the honey exhibits at the World's Fair, which he can furnish at the same price. The size of the pictures is 5x8 inches. Address Bro. H. at Fint, Mich., and get what pictures you want.

Convention Badges.—There are about forty of the beautiful Badges left over, of those used at the recent meeting of the North American. These we offer as "souvenirs" of the Columbian meeting. Price, postpaid, 15 cents each, or two for 25 cents. Whatever is realized on the sale of these Badges will be turned into the treasury of the Association. Don't you want one, reader, to keep as a memento, even though you were not fortunate enough to be present? They are red, with pin at the back, and neat bow of white and blue ribbon at the top. It is a patriotic Badge, as you will note that red, white and blue are represented in its make-up. Better have this neat and pretty souvenir.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—Ed.

Correct Space Between Top-Bars.

I would like to know through the Bee Journal what is the correct space between the top-bars ¼, 5/16, or ⅜ of an inch. I find that with 5/16 space there is very little brace-comb on the frames, but with ⅜ thore is a good deal. I use the Hoffman frames, and I put strips on the side of some to see how it would work 1/16 thick, and no brace or burr combs either were on the frames; but I would like to know which is the correct space. G. D. Littooy.

Tacoma, Wash.

Answer.—Your question is one that has not received a great deal of attention, probably not as much as its importance demands. Thickness of top-bars, and space above top-bars, are the things that have been mostly considered in preventing brace and burr combs, but the space between top-bars has undoubtedly much to do in the case. In a late number of *Gleanings*, Dr. Miller gave an account of some experiments he had made which seemed to point to the conclusion that the best space between top-bars is ¼ inch. With that space he had no brace-combs, and he also used the argument that ¼ inch is the space that bees of their own accord leave between two surfaces of sealed honey, or between a separator and a surface of sealed honey.

You have undoubtedly reached the correct conclusion that ⅜ space is too much. The question lies between ¼ and 5/16. You find very little with 5/16, and the Doctor found none with ¼. You will do well to try ¼. There is just a possibility that with continued usage there may be propolis in the ¼ space, but it seems hardly probable, if that is the space the bees leave between sealed combs.

Eupatorium or Boneset.

I enclose a bunch of white blossoms that grow in the river bottoms here. We seldom see it on the upland. Bees work on it only in the afternoon—they fairly swarm on the weed. They have not worked on it for three weeks. We had quite a frost about three weeks ago. The weed is from 4 to 5 feet high, and is in a kind of a woolly state now, the blossom, I mean. Some of the old men here call it boneset, but I don't think it is. It is not what I call boneset.

Riverton, Ills. **C. V. Mann.**

Prof. Cook says this about the plant that Mr. Mann sent us :

The plant is one of the several species of our very common and abundant *Eupatorium*, or boneset. The bees often get much honey from it, which, however, is rather strong and dark. So we see that "Old men for counsel" is a wise maxim.

A. J. Cook.

Colonies Deserting—Swarming.

I wonder if you have the same annoyance which besets us here, viz.: colonies unceremoniously quitting their comfortable frame hives and hieing themselves off to the mountains and forests. I have lost over 30 or 40 colonies this way, and some old, settled colonies which I have had two years. It seems they wont brook the least interference. A colony left, for instance, yesterday, leaving behind unhatched brood, and a comb quite full of honey. There are no insect plagues to account for it, though I must admit the "bee-catcher birds," as we call them, have been very troublesome lately about the hives, sitting most audaciously right at the hive-entrances, and thus hindering the bees from working ; and I must admit I have been neglectful in not having these rascals shot lately. Would this perhaps account for the bees' discontent ?

I see a good deal in the Bee Journal about preventing swarming. Allow me to ask, why cannot swarming be prevented by keeping queen-excluding zinc always before the hive-entrances ? Why all these "trapping" inventions, when by simply preventing the exit of queens in the manner I mention, swarming *cannot* take place.

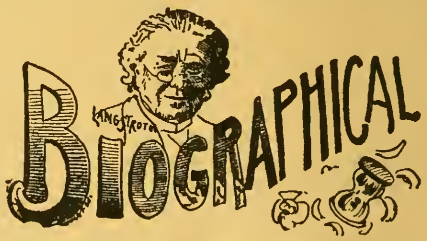
"The drones," you will say, "what about them ?" Well, my answer is, don't have any drones, or at least keep queen-excluders before ten hives out of eleven ; the eleventh's drones will suffice for mating with young queens. By using foundation of only brood size, no drones will be created, nor are they wanted. Should patches of drone-comb nevertheless be built, cut it out.

As my bees are so apt to leave *en masse*, I am now compelled (not to prevent *swarming*, but to retain my colonies) to keep excluding-zinc before the hive-entrances, and I find it neither hinders, nor apparently inconveniences the workers. **S. A. Deacon.**

Cape of Good Hope, South Africa.

Answers.—The desertion of colonies with you, leaving brood and honey in them, seems somewhat like the desertions that sometimes take place in the northern United States in spring. But one would hardly think your climate cold enough for that. And does spring come in July or August ? It is hardly probable that the birds are responsible for the desertions. Can any of our readers help us out ?

It may be a good thing for you to have excluders to prevent your queens leaving at the time of deserting colonies, and we have wondered why no one ever tried the same thing in the spring in the Northern States ; but to use it for the prevention of swarming is quite another matter. It would prevent the queens leaving, but it would not prevent the rearing of young queens, when the old queen would be killed, and if the young queen should not be allowed a flight she would be a drone-layer.



No. 54.—Mrs. Sarah E. Sherman.

We believe that so far in the Bee Journal's biographical sketches, only one lady bee-keeper from our "Sunny Southland" has appeared, and that "one" was Mrs. Jennie Atchley. This week we are greatly pleased to be permitted to present to our readers another prominent lady apiarist in the person of Mrs. Sallie E. Sherman, who also lives in the big bee State of Texas.

We met Mrs. Sherman at the recent North American convention, she having come all the way from her Southern home alone, and on her "own hook," that is, she was not sent as a "delegate" from any bee-association. Mrs. S. also gave us a very pleasant call at our office before the convention, and we had a good opportunity to get acquainted with our large and kind hearted sister, whose name is not altogether unfamiliar to many of our readers.

We commend to you all the following interesting life-story of Mrs. Sherman,

MRS. SALLIE E. SHERMAN.

written by Mrs. Kate A. Orgain, one of her intimate friends, and kindly sent to accompany the picture shown in connection therewith. With an Orga(i)n to sound her praises, and a life that blends in delightful harmony, Mrs. Sherman couldn't well be anything else than a happy, contented and independent "bee-sister." But here is the sketch :

The world is prone to look away off in the distance for its heroes and heroines, whilst right within elbow touch are persons whose fortitude and self-sacrifice, whose noble conquering of every obstacle would make their lives seem grand to us, if we but new the inner working, the toil, the love, and the brave winning of success, under most unfavorable circumstances. I think how often the story of these every-day home heroines and heroes might help and strengthen some toiling, weary soul, and I believe their biographies should be repeated o'er and o'er, and that we should honor the man or woman who has won success through difficulty, embarrassment and affliction, more than we generally do.

In the beautiful village of Salado, "way down South in Texas," is a lady who for her practical sense, her indomitable courage and perseverance in overcoming the "ills" a limited purse "is heir to," and by her devotion and self-sacrifice as a mother, gives her the well-deserved name of Heroine. This lady, Mrs. Sarah E. Sherman, whose maiden name was Sarah Elizabeth Johnson, was third daughter and fifth child of Rev. Thos. E. and Abigail Johnson, and was born on Jan. 15, 1843, in Decatur county, Ga., where she lived with her parents and family until she was 13 years of age, at which time her father and mother moved to Texas with the four youngest children. This was in 1856. Being in an almost destitute condition, caused by fire, storm, and sickness, the family tried various kinds of work to earn an honest livelihood.

Mrs. Sherman well remembers the first money she ever earned. She made an alum basket and filled it with wax flowers of her own make. Her father sold it for $7.00, and handed her the money to spend as she pleased. From that time she began to realize that she was more than a figurehead in the home life, and that there were many ways by which she could aid in making a living.

The family resided in Washington county, near Brenham, for three years. During one of these years her father made 30 barrels of mustang wine with the assistance of herself and two little brothers in gathering the grapes and making the wine. He also raised Havana tobacco, and his wife and children learned to make cigars. Sarah made as many as a thousand a day, yet never learned to use the hateful weed.

Her father purchased 160 acres of land in Burleson county, to which he removed his family in the fall of 1859. Here they endured the many privations and hardships incident to the settling of a new place in a new country.

In 1861 Miss Johnson formed the acquaintance of Mr. S. G. Sherman, who had also settled in Burleson, about three miles distant from her father. They became engaged to be married in April.

1862, but the War, which delayed so many love matches, came on with all its trials and anxieties. Taking her portion of the burden laid on so many Southern women, she learned to card, spin and weave, make palmetto hats, and do various kinds of knitting. After nearly four years of betrothal, she and her affianced were married, on Jan. 15, 1866, it being her 23rd birthday. The fruit of this happy union was only one child, a son, Charles H., born Nov. 11, 1866.

In 1868 the cruel hand of Death snatched away the beloved husband and father, leaving her with her child to rear and educate, and nobly has she performed the duty.

The War had destroyed the fortunes of Mr. Sherman, and at his death she was left with only a good sized tract of unimproved land, a comfortable box-house, 2½ acres of land under fence, and a few head of horses, cattle and hogs. Mrs. Sherman had never been healthy, even when a girl, but being possessed with an indomitable will, and ever-present energy, good judgment, fine executive ability, and the grand stimulus to action — a mother's love, she succeeded in bringing everything upon her farm to an improved condition, making things pay where many men would have given up in despair.

She devoted a great deal of her time to out-door life, looking carefully after her stock, not only for the sake of making them profitable, but from a womanly kindness of feeling toward everything dependent upon her for food and shelter.

Just as she had succeeded in placing a portion of her land in cultivation, and fenced for pasture, a fire destroyed 7,000 rails, and all the grass, causing also the loss of ten cows. She could not bear to let their motherless calves die, so having other cows with young calves, she gave one calf away, and made the nine cows rear 18 calves. This incident is mentioned to show her ingenuity and perseverance under difficulties.

After the fire, she redoubled her energies, had rails split, and her fence rebuilt. In 1875 she leased her farm for a term of years at $200 per annum, and moved to Salado, Bell county, to educate her son. Having had but few educational advantages, she pursued her studies at home, finally teaching several elementary schools, and had her son well advanced by her own training before sending him to the College here.

In the fall of 1879, she purchased one colony of common black bees in a box-hive. From this small beginning has arisen perhaps one among the best apiaries in the State. Mrs. Sherman Italianized her bees by introducing Italian queens into her colonies of black bees. She now uses the movable-frame hive, and began the season's work in 1888 with 40 colonies, and secured 6,000 pounds of honey, mostly extracted, and 100 pounds of wax.

Besides making a success with bees, Mrs. Sherman raised fine chickens that year, having 75 choice Houdans. Besides this out-of-doors work, she has done her own household work, cooking, etc. She has shipped full colonies of bees to several counties in Texas, and Houdan chickens and eggs all over Texas and into Arkansas. Mrs. Sherman manages her own business, sends anywhere for whatever she wants, having had 100 bee-hives shipped at one time from New York. These came "knocked down," but she put them together and painted them to suit her own taste.

Mrs. Sherman has a national reputation as a successful bee-keeper, was represented at the World's Exposition at Paris, and also at the Texas Spring Palace at Fort Worth. The agent of the United States government made a special request of her to furnish samples of all the different kinds of honey she produced, together with a photograph of herself, so she sent the latter and a picture of her apiary taken from different views, also four buckets of honey, namely, red daisy, horehound, horsemint, and silver-weed.

At the death of her husband Mrs. Sherman had been appointed administratrix of the estate, and guardian of her child. When he became of age she found, on reviewing her business record, that she had earned about $640 per annum during his minority. She always kept a strictly itemized account of her income and expenditures. She spared no pains, labor or expense upon her son's education. She sent him to Louisville, Ky., to attend medical lectures, where he graduated with high honors in a class of 306 students, taking two gold medals, and receiving the appointment of resident physician of the Louisiville City Hospital. From there this determined, noble mother sent her boy to New York for more thorough instruction in surgery and general practice. Well and faithfully has she fulfilled the trust the dying father left her, and now her son, Dr. C. H. Sherman, is in possession of a fine practice in a large city in Texas.

Mrs. Sherman has also found time to

work outside her own line of business. For years the question of a good wagon bridge across the Salado river had been discussed, but year after year passed, and no bridge. At last Mrs. Sherman, one day in February, started out with a petition, and secured 175 names, petitioning for the bridge immediately. Getting two other ladies to accompany her, she presented it to the Commissioners, and gave them to understand that they would take no denial. In July following, the citizens of Salado had the pleasure of driving over the new iron bridge—a lasting monument to the energy of one woman.

In many ways Mrs. Sherman has helped others, and to members of her own family, who were needy, she has been kind and generous. She cared for her aged mother until Death called the mother away, and now she tenderly looks after her father, who is 81 years of age.

Such a life as Mrs. Sherman's furnishes many lessons to those willing to learn them. Such devotion as a mother, such energy as a willing worker, such sensible, business capacity in a woman must ever inspire other women, and encourage many a toiling bread-winner.

I take great pleasure in sending this tribute of my respect and friendship for Mrs. Sherman. We are both residents of the same little village, and I cannot help feeling proud of what she has accomplished from a woman's standpoint. Having been born in Chicago, in its early days, I would be glad to see her receive there the place and recognition which is being given to so many noble women at the "White City."

KATE A. ORGAIN.

RANDOM STINGS

FROM THE STINGER.

"Hutchy" is a dandy,
Hasty is quite "sandy,"
The *Review* is very handy,
All are sweet as candy—
And not like "Handy-Andy."

Dr. C. C. Miller has a very readable column-article in a recent number of the *Youth's Companion*, entitled, "Bees on the Defensive." Between the *Ladies' Home Journal*, the *Companion*, and other publications other than the bee-papers, the Doctor manages to give the public a good deal of information about bees and honey.

Mrs. Jennie Atchley is unlike most women—she has given away her age in *Gleanings* for Oct. 1st. She was 36 years of age on July 14, 1893—quite young for a woman who is the champion queen-breeder of the world, and also the mother of eight children, the oldest of whom is about 19 years of age, and the youngest three months!

If the Lone Star State should ever give a premium to the largest queen-rearer in that State, it would also be well for it to give a premium to the parents who do the most to populate the State. It looks as if the Atchleys, *pere et mere*, are in a way to carry off both such prizes, should they be offered. I believe the French government offers a premium of some sort to the parents of families reaching a certain number.

Mr. McIntyre, the bright young apiarist, and President of the California State Bee-Keepers' Association, gives an illustrated descriptive article of his giant honey-extractor in *Gleanings* of Oct. 1st. It is an 8-frame, automatic reversible machine, propelled by water-power. It is his invention, and works like a charm. He has extracted 44,000 pounds of honey with it the past season. It is probably the boss honey extractor of America. Score one for McIntyre and California.

Whoop, la! 5,000 queens will be the out-put of the Atchley queen-yards this year. Just think of it! Who says that new blood is not being introduced into our American apiaries? It looks as if it is being infused into *Apis Americana* with a vengeance. It is therefore no wonder that the American "Dago bees" are a finer race than the parent stock. With such a standing "ad." in her favor, I wonder that Mrs. Atchley advertises at all. But when I come to think of it, it was through the liberal use of printer's ink, along with fair dealing, that the good woman achieved the success that has crowned her efforts.

Here is one of Æsop's "cunningly devised fables," that seems appropriate in this department of the BEE JOURNAL:

"There was once a meddlesome young boy who led himself up to a hive of honest, busy bees to meddle some. He stuck his stick into the gum, and thereby a meddlesome little bee built a fire on the end of the bad boy's nose. Not satisfied with the first round, he blows himself full of rage and strides forth to rile the bees once more. His stick is thrust in a second time, and all the swarm is stirred up and rattled. Since the second round the bad boy has been out of his head and swollen. He is very fat, and dreams that he is his sister's pin-cushion."

Mr. H. E. Wilder, of Riverside, Calif., has secured 22,000 pounds of honey this year from 110 colonies. A few years ago Mr. Wilder, who is a young and energetic young man, was a book agent. Verily, sitting down and letting the bees work for you is better than tramping over the country trying to sell books, to say nothing of putting up with the taunts of impolite persons. Good boy, Wilder; may your shadow never grow less.

On page 738 of *Gleanings* Rambler has let his fertile imagination run off and produce an electric bee that will gather honey by night as well as by day. It is a cross between a common Italian bee and the American lightning-bug. But, lo! the editor of that paper throws a wet blanket on Rambler, and says, "The idea of crossing lightning-bugs with bees is older than the hills."

IN SUNNY SOUTHLAND

CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Dead Brood Don't Produce Foul Brood

I notice on page 434 that Mr. McEvoy gives me a going over about what I have said regarding foul brood heretofore. What I have said, I have said, and yet stick to it, that common dead brood will not, cannot, never did, and never will, produce *foul* brood. How do I know? Because I have tried it. I will here mention a case that last spring came under my own observation. The party did not wish me to mention it publicly, but in this connection I will do so to make my point.

Last spring, after warm weather had begun, a man brought me a carload of bees, and they were put up for shipment just as they were beginning to swarm, and were very heavy with brood in all stages. The bees were on the road four days, and 70 of the strongest colonies smothered, and such a mess I had never seen before. The dead and rotten brood was given to new swarms and other colonies at once, and no bad results. This, together with the other *experience* I have had along this line, proves conclusively to me that there is no such thing as real, old, malignant (*Bacillus alvei*) germs in dead or rotten brood. There *must* be a germ to start foul brood, or else it must not exist. You may ask me where it started; this I am unable to answer—just the same as I am unable to say where yellow fever starts. There are a great many things in this world that I suppose never wil come to light, and where, or how, foul brood started may be one of them.

Friend McEvoy, I fear you started out wrong in suggesting that dead or rotten brood produces *foul* brood, for it will not do it in this country.

Now, again: You have laughed at me, but I can see (or think I can) that your laugh was only a forced grin, as any of our little folks know that water is given us to cleanse with, and cleanliness is one of *Heaven's* first laws. Therefore, I said that to scald the hive where a foul-broody colony had been, would kill the germs, and to put a new colony of bees into such a hive, they would not take foul brood. I did not mean that scalding the hive would cure foul brood, or placing the foul-broody colony back into a scalded hive would effect a cure. No, no; it would do no good at all.

Now, Friend McEvoy, you say that you and some one else (I don't remember now who it was, as I am writing from memory to-night, and I have not your article before me) know as much as Mrs. Atchley about these things. Well, now these things I *must* admit, for if I did know more I would hardly be allowed the honors, as I am only a woman. Then, I would not like to say that I knew more than other people, as it would not be ladylike to do so; but I *must* acknowledge that I know but little, and learn every day of my life. But there is one fact that presents itself to me concerning foul brood, and that is dead brood *will not* cause foul brood in this country.

Friend McEvoy, I have never said a word against your way of curing foul brood, as I think you are doing a wonderful work in getting the bees in your country cleaned up, and curing *foul* *brood ;* but I said in the outset that common, dead, rotten, drowned, or any other kind of dead brood will not produce *foul* brood in Texas, and I am willing to lead George Chaney, the biggest (in stature) bee-keeper that I know of (as he looks as if he would weigh 400 pounds) over my bridge, and it will not shake, much less fall. Now, Friend McEvoy, as you laughed at me without permission, may I grin at you for thinking that dead brood produces *foul* brood? Then if this shoe pinches like the other one did, please wear it, and you will have a full pair, and standing in them you may force another grin.

In conclusion I will say that as long as we are laughing, there is no danger of any fight. Then, I will always run before I'll fight. JENNIE ATCHLEY.

◆

Sorghum Syrup for Winter Stores.

MRS. ATCHLEY :—Will bees winter on sorghum syrup successfully in this latitude, if fed to them for winter stores? I have some colonies that are light in stores, and I wish to know if they will winter on it successfully in this latitude. Answer through the "old reliable" AMERICAN BEE JOURNAL. May it long continue, is my wish.

Decatur, Miss. N. E. CLEVELAND.

Friend Cleveland, all my experience in feeding common molasses or sorghum, is that bees will not take hold of it for me. I have succeeded a few times in getting some colonies to take a little sorghum that were starving to death, and they will work at molasses barrels, but I would mix a little honey or sugar syrup with it. But if you can succeed in getting them to store enough of it in the combs, I think in your latitude they will winter on it. I suggest that you try it and report. JENNIE ATCHLEY.

"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the BEE JOURNAL for one year, for $1.70.

Queries and Replies

The Best Working Colonies for Next Season.

Query 895.—Which will likely make the better working colonies during the working season next year—that is, store the most honey—those that require from 20 to 25 pounds to carry them through the winter, or those that will get along on from 5 to 10 pounds of stores?—Minn.

The latter.—G. M. DOOLITTLE.

I would choose the larger large colony.—E. FRANCE.

Strong colonies that require the lesser amount.—P. H. ELWOOD.

All conditions being equal, there will be no difference.—H. D. CUTTING.

The amount of food consumed cuts no figure in the case.—MRS. L. HARRISON.

I would select those that will take from 20 to 25 pounds.—J. P. H. BROWN.

I would rather risk those that consume the 20 or 25 pounds.—J. M. HAMBAUGH.

As a rule the first, because stronger. A medium amount may be better than either.—C. C. MILLER.

The amount of honey consumed is no criterion by which to judge of their future strength or working qualities.—J. H. LARRABEE.

Probably the stronger colony. But my doctrine is to go into winter quarters with *not too large* a colony of *young* bees.—WILL M. BARNUM.

I do not think the quantity of honey consumed has anything to do with the capacity for gathering honey the next season.—EMERSON T. ABBOTT.

I don't think it will make any difference, still I don't know that any data can be ascertained from which a correct answer could be given.—J. E. POND.

I know of no fixed rule about this, for, if they all go through, one may be as good to store honey as the other, as in this country they *all* may need food before honey comes in the spring.—MRS. JENNIE ATCHLEY.

It frequently happens that those that eat the least winter the best. Very large colonies are no more likely to winter well than medium-sized ones.—S. I. FREEBORN.

I do not think any answer could be given. The amount of honey depends upon conditions that have little or nothing to do with the excellence of the colony.—A. J. COOK.

I suppose a colony gets along on what it requires, and other things being equal, as regards strength and health, one would be as likely as the other to be the best.—A. B. MASON.

Comparisons cannot be made that way. If bees are not wintered under proper conditions, they will consume more honey than is necessary, or, a colony that is strong in bees during the winter may not be in condition at the proper time to store the most honey.—MRS. J. N. HEATER.

I hardly know whether I understand the question rightly. If it is meant that a colony requiring that amount of food besides what they already have, I should say those requiring the least. Those consuming the most honey in winter will be almost certain to prove the best the following year.—C. H. DIBBERN.

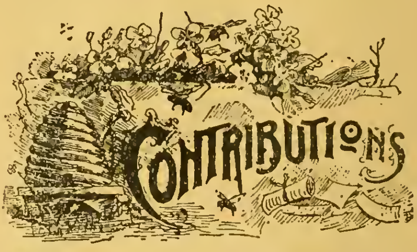
I do not know, and do not think this makes much difference. The important thing is, Which one has the best queen and the greatest number of vigorous young bees in the spring? The small colony often comes out even in these respects, and is rather more likely to have the other necessary element—plenty of stores.—JAMES A. GREEN.

The question is vague. No healthy colony would require 20 to 25 pounds for winter alone, and no colony can amount to much that gets along on from 5 to 10 pounds during winter and spring. It takes plenty of honey to get *any* colony into good working order. I prefer my colonies to go into winter strong, but not abnormally so.—R. L. TAYLOR.

There are so many other things that enter into the case that a positive opinion cannot be given. Other things being equal, and all conditions favorable, the colonies that have the most bees at the beginning of the honey harvest will store the most honey; and they are likely to be the ones that have consumed from 20 to 25 pounds of honey in the winter and spring.—M. MAHIN.

You assume that it is a common thing for bees to differ as much in winter consumption of stores as 5 is to 25. Such is not the rule by a half a mile, or more. Those colonies that have young, vigorous queens that the workers are perfectly contented with, and little inclined to swarm, will give the best results under almost any condition of things. Proper condition at the beginning of the honey harvest, and the conditions to hold the proper conditions, is the essentiality of success in the best results.—G. W. DEMAREE.

I do not see why the consumption of honey would increase the usefulness of a colony, unless on the theory that it is used to rear young bees. If the greater part of 20 to 25 pounds were used for that purpose after bees begin their flight in spring they would be better than one which used less, and consequently reared fewer young bees. But I regard it of no advantage for a colony to consume a large amount of honey in winter. —EUGENE SECOR.



Improvement of Bees—Rearing Queens, Etc.

Written for the American Bee Journal

BY DR. E. GALLUP.

On page 337, Dr. G. L. Tinker has an excellent article, or some excellent ideas, on the improvement of bees. Well do I remember when all the rage was breeding for color and gentleness, until the Italians were comparatively worthless for profit. Many beginners reported that the common bee was superior for profit, etc.

Then the way of rearing queens was very objectionable. The fact was, a large majority were running out the race instead of improving it. Many queen-breeders were anxious to have Gallup endorse their stock, and I received dozens of queens *gratis*; but I received none that came up to my standard for profit, except two—one from Adam Grimm and one from Dr. Hamlin.

The Hamlin queen I kept until she

was 6, and the one from Grimm until she was 5 years old. I reared my queens from one, and the drones from the other, one season, then changed about the next season, then kept selecting from my most prolific and best colonies until I had as profitable a lot of bees as could be produced anywhere.

I occasionally purchased an imported queen, but kept on in the above line. I started in on that line in California, consequently I had a stock of bees that I was not afraid to recommend for profit. As Dr. Tinker says, they were not quite as gentle to handle as some, under all circumstances, but not extra vicious, by any means.

My method of rearing queens was this: Take a frame of hatching brood from any populous colony, and the adhering bees; I also was careful to get quite a quantity of unsealed larvæ, until I filled a standard hive with comb and brood, and the adhering bees. Put them on a new stand. The following day take young nursing-bees frem strong colonies; this can be done by shaking bees from combs, in the middle of the day (when the old bees are out to work) in front of the new colony until the hive is overflowing with nursing-bees. All the old bees go back to their own stand. I always was careful not to get the old queen from any hive. This can be done by taking out the comb containing the queen, and setting it by the side of the hive.

I always selected one or more combs containing pollen, as the young bees will not gather much for the first three days. I gave water and stimulated with diluted honey at evening, and if the weather was unfavorable, kept up the stimulation. On the fifth day take out all unsealed larvæ and queen-cells, then insert two or more combs from my best colony containing eggs and larvæ just hatched, cut out a strip just below the young larvæ for queen-cells. I would succeed in rearing a splendid lot of queens, large and prolific. The hive was full of nursing-bees, and all prepared to fill the queen-cells with abundance of prepared food.

I was just foolish enough to think the above a better plan than to take a pint of old bees, or just as it happened, and put them into a 6-inch square box, and compel them to build or rear one or two starved queens where the necessary warmth and nourishment were lacking, Of course, with Doolittle's book on practical queen-rearing, we have all that is necessary now-a-days.

Understand that I was not rearing queens for sale, but only for my own use. Bees can certainly be improved, as I have abundantly demonstrated to my own satisfaction, and we can improve the imported Italian instead of retrograding, as many have claimed heretofore.

Do not understand me as meaning that my queens were as large as hens or turkeys, but extra-large for queens. In this climate I reared queens that would almost occupy every available cell in a 10-frame Langstroth hive, by moving the combs to the side of the hive filled with sealed brood, occasionally. On such a colony I placed two supers at extracting time, and the two would be filled ready for extracting as often as an ordinary colony would fill one.

Santa Ana, Calif.

◆

Some Ideas About Cross Bees and Honey-Gathering.

Written for the American Bee Journal

BY T. I. DUGDALE.

On page 398, I notice a few statements made by one of the noted queen-breeders in regard to cross bees, which I think should be modified, to some extent at least. If past experience counts for anything, I should say that the burden of evidence is decidedly against the theory advanced by that writer, and if the reader will turn to the second chapter of the Gospel by Luke, and the 14th verse, these words will be found: "Glory to God in the highest, and on earth peace, good-will to men."

There are many sore and grevious trials in this world to bear, and among them may be classed a lot of detestably cross bees following one from place to place persistently, thus causing a person to commit sin (in thought, at least) if not openly. Taking it for granted that the words mentioned is the foundation of the Christian's hope, let us see how it applies to the ordinary affairs of daily life.

Take, for example, an individual, a family, a neighborhood, or a Nation, and history tells us that the more peaceable and enlightened, the more prosperous they become, and on the other hand a continual state of warfare and plunder tends to lower and degrade. This same state of affairs I contend exists with animals, and amongst bees those colonies which show the worst fighting traits, are also apt to be the most given to robbing, and, as the saying goes, are never at peace except when at war; and ill-gotten gains, whether among bees or men, generally come to no good end.

Again, I find that very cross bees seldom winter well, as they are ever on the alert for some imaginary foe, and do not so readily enter into that state of quiet so necessary for the well-being of the colony. Well do I remember a colony of Cyprians which I once had, that were so cross that they would attack anything within 80 rods of the apiary, without any provocation whatever, and, at times, were so vicious that even the doors and windows to our house, which were located some 10 or 15 rods away, had to be kept closed to prevent them from entering and attacking the inmates; and never could I open their hive without first preparing myself for a regular seige, and several times I have seen the stings so thick in my clothing that I doubt if one square inch from head to foot could have been found that did not contain one or more, even with all the smoke I could use on them, and at last I was compelled to destroy them, as they would attack people and horses on the highway, and were in a fair way to create a disturbance leading to serious consequences. As honey-gatherers they were no better than the average of the more docile races in the same yard.

During the past five years I have never worn either veil or gloves in the apiary, except on one occasion when I had a swarm cluster in a thick mass of brush on a tree, which made it necessary for me to stand on a ladder directly under them in order to secure them, and I then resorted to the use of a veil as a precaution against their falling on my head and shoulders. I have brought about this state of affairs by continued careful breeding and selection, and never before have I had bees that would equal these as energetic honey-gatherers.

I may say in this connection that I make the production of honey and experiments in the various branches of apiculture a specialty, and have tried nearly all of the different races of bees obtainable, and would pinch the head of a queen that produces cross bees, as quickly as for any other one thing that I know of, as I have no use for them, and am not afraid of any falling off in the average honey crop in consequence of it.

As a member of the National Bee-Keepers' Union, I would earnestly advise any one having any queens that produce really vicious bees, to send them to Texas, or elsewhere, where they have lots of room and a sharp stick to look after them; and especially if you are near neighbors, or located along a highway where people are liable to be disturbed by them, for we read that offences must needs come into this world, but woe be unto him by whom the offence cometh.

West Galway, N. Y.

Improvement of Our Present Races of Bees.

Written for the American Bee Journal

The question of improvement of our present races of bees has been much discussed, and like the improvement of domestic animals, the most obvious way is to produce and preserve the "fittest." Natural selection of progenitors is not always the "survival of the fittest." Whilst we are eager for improvement that will result in greater honey gathering capacity, the fountain-head of much of our apicultural knowledge allows itself to endorse acts upon what appears to be diametrically opposite to what seems to be demanded. Whilst the course pursued is contrary to every known result, where bees are directing opperations according to Natural law, or transmitted instinct, to do other than improve upon Nature's methods, is a wicked perversion of man's opportunities.

The breeding for size seems to call loudly for experimentation. Does it not coincide with the average judgment that the larger bee will be, all things considered, the most profitable? Then why continue to breed in combs black with age, and cells half-filled with cocoons? Is it not a fact that newly-built cells produce an average larger bee? That it requires a greater amount of chyle, or chyme, to float the larvæ? That this chyle, or chyme, whether scanty or profuse, has a corresponding effect upon the future bee, producing greater size, strength, and activity? All close observers will readily acknowledge that such is the case in the production of queens—why not the same effect upon the worker? Can you produce as fine and as large queens by taking a portion of the chyme, chyle or jelly from the cell, as will be produced by one abundantly supplied with the same? These questions were suggested, at this writing, by an article in the AMERICAN BEE JOURNAL on page 408, and at a prior time by an article in *Gleanings*, for Aug. 15, 1893, page 635; and the idea endorsed by the editor of *Gleanings* on page 713, of a September issue.

The writer on page 408 of the BEE JOURNAL, complains of receiving a dollar queen. His language is, "A small yellow queen, but little larger than an average leather-colored worker," and "bees sent in the cage correspondingly small." This same experience many others doubtless have had. The writer thinks that perhaps he obtained an old, played-out bee. My opinion is it was a queen bred after the vicious manner referred to in *Gleanings*, page 635. No breeder of domestic animals would pursue a course of breeding from "runts," with the expectation of producing a superior animal. Whoever produces these runts of queens and sends them out, is ignorant of the requisites to produce excellence, or is lamentably lacking in the practice of the Golden Rule, even by sending out "golden bees."

If a large, well-formed animal of its species has more prepotency to transmit to its progeny its own superior excellence than the "runt," then why not the same law be operative in the bee? That the bee is governed by the same laws in the transmission of an excellence of themselves is patent in the fact that all good queen-breeders, and expert apiarists, are asking greater prices for some than others; because they are more prolific, and transmit their qualities of excellence.

If man, by skillful manipulation, can improve upon the natural selection of the hive, is it not a sin against the Author of the bee, to employ any method that enforces the bees to produce queens by methods other than improving on natural methods, retarding effects to produce superiority?

Des Moines, Iowa.

Use of Comb Foundation in the Brood-Chamber.

Results of Experiments at the Michigan Apiary,

BY R. L. TAYLOR, APIARIST.

I desire in this article to set forth briefly the character and results of the experiments made in the apiary to test the comparative value of comb, foundation and starters when used in the brood-chamber for swarms, and in addition thereto to call attention to what the experiments seem to disclose touching the comparative advantage of swarms of different sizes. In the main, all this can be best accomplished by the use of tables which I have prepared and which are presented herewith.

It was not till the 27th of June that I was able to put into operation my plans for making these tests. I prepared 12 hives, four of which were furnished with comb, four with foundation, and four with starters only. The hives prepared with comb were designated by the numbers 1 to 4 inclusive with the letter A, those with foundation in like manner with the letter B, and those with starters with the same numbers and the letter C, and each hive was marked with the proper designation and its weight. Then in each case when a swarm issued, which was to be used for making this test, it was secured in a basket and weighed before hiving: the supers also, whether taken from the old hive at swarming or supplied subsequently, were carefully weighed before they were put in place and a record made on the spot of all items. By referring to table A, all these will be found in the three columns following the date of hiving except of course the weight of the cases subsequently adjusted which appears further along.

I ought also to say that in each case the hive with the bees and cases was reweighed early on the morning subsequent to the hiving in order to detect and thereby correct any change which might chance to take place before the swarm became settled in its new home. The only change it was found necessary to make was the addition of the fraction of a pound to the weight of the bees which may be supposed to be accounted for by the presence in the morning of bees which at the time of swarming were afield.

Other data for table A were obtained by weighing the several hives, bees, supers and all upon three different dates, viz., the 6th, 12th, and the 19th of July (thus dividing the time of the test into three nearly equal periods) and by weighing the cases of honey separately on July 19th, at the end of the time given to the test. These data with the previous ones enable me to state the exact total gain of each colony for each of the three periods, the gain of each colony in the amount of comb honey together with the gain in the weight of the hive for the entire time. From these I deduce the gain per pound of bees of each colony for each of the three periods as well as for the entire time, and also the gain in the weight of the hive and the gain in the amount of comb honey for the whole time.

It will be noticed by reference to the

tables that almost nothing has been made of 3A and 2C. The explanation of this is that the latter persisted in its desire to swarm until it eventually lost a considerable part of its bees by their uniting with another swarm, and the former, within a day or two after swarming, in some way lost its queen and dispersed more or less in consequence. The only question with regard to the propriety of this course arises when we consider table C, wherein the comparative advantages of large and small swarms are weighed. Perhaps 2C should have been permitted to cut some figure in that, for it clearly illustrates one of the disadvantages of very large swarms.

Table B is a summary of table A and puts the tables of each group of colonies employed in the experiment side by side so that the general results are seen at a glance.

Table C is derived from table A and puts in constrast the work of the stronger colonies of each group with that of the weaker ones of the same group, and table D is an epitome of table C.

Now what do the tables teach with regard to the comparative profit of the use of starters, foundation, and comb in the brood-chamber as well as with regard to the advantage of larger and smaller swarms? It would be too much to expect that upon either of these points the results shown by the several hives taken separately would invariably point in the same direction. There are so many inscrutable influences at work that we may well look for unexplainable vagaries in the revelations of individual hives. It is largely for this reason that I think the writer who in one of the apicultural journals recently very flatteringly intimated that the results obtained in the experiments at this branch of the Michigan experiment station would be conclusive, was hasty.

If several varieties of wheat, for instance, were sown side by side upon precisely the same kind of soil so far as human skill could determine, and each variety should receive exactly the same treatment in all respects and at the same time, and one certain variety was found to yield 20 per cent. more than any other, yet the farmer who should from the one experiment jump to the conclusion that the result would always be the same would be accounted lacking in judgment. The results must be verified repeatedly before they can be accepted as the rule. Just so it is with the matter in hand. Yet the multiple character of our experiment with results so nearly uniform give strong assurance that what seems to be disclosed is in the direction of the truth.

From the figures given in the last column of table B, we find that the colonies hived on comb gained in all more than 11 per cent. over those hived on starters, and that those hived on foundation gained more than 13 per cent. over the same. But if we examine with reference to *comb honey* only, we find that colonies "A" (those on comb) gain less than 5 per cent. more than colonies "C" (those on starters), while colonies "B" (those on foundation) gain more than 17 per cent. over "C." But it may be said that "C" has an undue proportion of the weaker colonies, which is true; still, if we turn to table "C" and consider only the strong swarms in each group, we find that "A" gains 9½ per cent. more than "C" in comb honey, and "B" gains 42 per cent. more than "C!" But strange to say, taking the light swarms in the same table and column the positions are exactly reversed—"A" gains nearly ½ of one per cent. over "B," while "C" gains nearly 32 per cent. over "B." If space permitted it would be interesting to inquire why the difference in the weight of the colonies should cause this reversal in their positions in regard to the amount of comb honey produced.

Referring again to table "B" from the figures given in the third column, where the gain for the first period is given, we deduce that "B" gains during that period more than 53 per cent. over "C," while "A" gains more than 68 per cent. over "C;" but during the second period the figures show that for that period the positions are exactly reversed: while for the third period the positions as to relative gain are again changed, "A" making a spurt and leaving "B" in the rear.

Referring again to table "C," we find that the strong colonies invariably gain the more in the first period, while the light ones take a decided lead both in the second and the third periods; in the amount of comb honey for the entire time in each group, the strong colonies have a decided advantage, and so in groups "A" and "B" in amount of total gain, but in group "C," in this point, the weaker ones are far in the lead. But this sort of comparison might be carried on almost endlessly.

If we examine table "A" we find, as was to be expected, that the results in the cases of some individual colonies do not always accord with the general re-

Table A.

Hived on	Designation.	Hived June.	Wt of Hive pounds and ounces.	Weight of Cases.	Weight of Bees.	Total weight at time of hiving.	Total weight July 6th.	Total Gain 1st Period.	Gain per lb. of Bees Pounds.	Wt of Cases adjusted July 6th.	Total weight July 12th.	Total gain to July 12th.	Total gain 2nd Period.	Gain per lb. of Bees, 2nd Period.	Total weight July 19th.	Total gain to July 19th.	Total gain 3rd Period.	Gain per lb. of Bees, 3rd Period,	Wt of Cases July 19th.	Total Gain in Comb Honey.	Total Gain in Comb Honey per lb. Bees.	Total gain in wt of Hives.	Gain in hives per pound of Bees	Total gain per pound of Bees.
Comb.	1 A	27	19 8	11 4	7 12	38 8	69	30 8	3.935	9 ·8	87 4	39 4	8 12	1.120	95 4	47 4	8	1.032	55 12	35	4 516	12 4	1 58	6 096
	2 A	27	16 4	24 4	7 8	48	80 8	32 8	4.333	.....	93	45	12 8	1.666	108 8	60 8	15 8	2.066	62 12	38 8	5.133	22	2.933	8.066
	3 A*	29	19	21	3	43	48 8	* 5 8	1.833	.....	49 8	6 8	*1		52 4	9 4		. ...	19 12					
	4 A	29	19	14 4	5 8	38 12	53	14 4	2.591	.....	63	24 4	10	1 818	72	33 4	9	1 636	31	16 12	3.045	16 8	3	6 045
								77 4					31 4				32 8			90 4		50 12		
F'd'n.	1 B	27	15 8	28 12	7 8	51 12	82 8	30 12	4.1	8 12	104	43 8	12 12	1.7	118 8	58	14 8	1 933	88	50 8	6-733	7 8	1	7 733
	2 B	27	15 8	53	7 4	75 12	105	29 4	4.034	7 8	129	45 12	16 8	2.275	134 8	51 4	5 8	.758	102 4	41 12	5 758	9 8	1 31	7 068
	3 B	28	17	5 8	5 4	27 12	39 12	12	2.285	.... .	49 8	21 12	9 12	1.857	55 4	27 8	5 12	1.095	18	12 8	2 381	15	2 857	5 237
	4 B	29	15 8	6 12	4	26 4	35 12	9 8	2.375	.....	48 4	22	12 8	3.125	56	29 12	7 12	1.937	21 4	14 8	3.625	15 4	3..812	7 437
								81 8					51 8				33 8			119 4		47 4		
Starters.	1 C	27	16 8	5	7 8	29	46 4	17 4	2.3	8	66 8	29 8	12 4	1 633	75	38	8 8	1.133	46	33	4 4	5	666	5 066
	2 C*	27	16 12	19 8	10 12	47	57	*10	.93	... .	65	18	*9 12	....	69 8	22 8	4 8		45 4	25 12	.. .			
	3 C	29	16	15 8	5	36 8	47 8	11	2.2	8 4	67	22 4	11 4	2.25	77	32 4	10	2	46 4	22 8	4 5	9 12	1 95	6 45
	4 C	29	15 8	7 8	4 4	27 4	36	8 12	2.058	....	49 8	22 4	13 8	3.176	59 12	32 8	10 4	2,411	21 8	14	3 294	18 8	4 352	7 646
								37					37				28 12			69 8		33 4		

*3 A and 2 C are disregarded in subsequent tables.

Table B.

Description of Swarms.	Wt of Bees in pounds and ounces.	Gain first Period.	Gain per lb. of Bees.	Gain second Period.	Gain per lb. of Bees.	Gain third Period.	Gain per lb. of Bees.	Gain Comb Honey.	Gain per lb. of Bees,	Gain in Wt of Hives.	Gain per lb. of Bees	Total Gain.	Total Gain per pound of Bees
Group A.....	20 12	77 4	3.722	31 4	1 506	32 8	1 566	90 4	4 349	50 12	2.445	141	6 794
Group B.....	24	81 8	3.395	51 8	2.145	33 8	1 395	119 4	4.968	47 4	1 968	166 8	6.936
Group C.....	16 12	37	2.208	37	2.208	28 12	1.7 6	69 8	4.15	33 4	1.97	102 12	6.12

Table C.

Group A	Swarms of over 7 lbs.	15 4	63	4 131	21 4	1.393	23 8	1 541	73 8	4.819	34 4	2-245	107 12	7 065
	Swarms of less than 6 lbs....	5 8	14 4	2 591	10	1.816	9	1 636	16 12	3.045	16 8	3.	33 4	6 045
Group B	Swarms of over 7 lbs.	14 12	60	4 065	29 4	1.983	20	1 355	92 4	6.254	17	1 152	109 4	7 406
	Swarms of less than 6 lbs....	9 4	21 8	2.324	22 4	2 405	13 8	1 459	27	2:92	30 4	3.27	57 4	6 189
Group C	Swarms of over 7 lbs	7 8	17 4	2.3	12 4	1 633	8 8	1 133	33	4 4	5	.666	38	5 066
	Swarms of less than 6 lbs....	9 8	19 12	2 078	24 12	2 605	20 4	2.131	36 8	3.842	28 4	2.973	64 12	6 815

Table D.

Total of Swarms of more than 7 lbs.	37 8	140 4	3 738	62 12	1.671	52	1 386	198 12	5 3	66 4	1.5	255	6 8
Total of Swarms of less than 7 lbs.	24	55 8	2.312	57	2 375	42 12	1.781	80 4	3 343	75	3 125	155 4	6 468

sults, yet sufficiently so, I think, to warrant us putting some confidence in the general results so far as they go; I say so far as they go, for the test was for three weeks only, and *time* appears to be an essential element in the experiment. The colonies that are strong in numbers as compared with the weak, and those aided with comb or foundation as compared with those left unaided, are soonest "out of breath" in the race, or, perhaps, the luxury and wealth of numbers and resources prove destructive to energy and ambition; and, on the other hand, straitened circumstances, whether it be from a lack of numbers or of resources, arouse vigor and persistence in a determination to supply the lack. At least, that is what the tables seem to teach, and we can only guess what the result would have been had the tests covered the whole of the honey season instead of the last half. Many and varied experiments must be made in order to arrive at the exact truth in these matters. Let no one fear that apicultural experiment stations may be either too numerous or too well equipped. To one who has entered it, the field looks exceedingly large.

For the rest I must be content at this time to close with a summary of the results pretty clearly disclosed by the experiments conducted in the manner and for the time stated, but I wish first to invite and urge all who are interested in the matter to make suggestions and criticisms both upon my methods and inferences, and let them not, out of a concern for my feelings, so refine their strictures that they lose all their point, and with it their effect. That is not the way, as too many bee-keepers seem to think, to get at the truth. At all events, I am not very thin-skinned, and I believe that, at least in these experiments, I am willing to look at the naked truth. I know now that in some respects my methods have been faulty, and no doubt they have been so in other points than those which I have discovered, and what those other points are I am anxious to know.

In this summary, as elsewhere, when I speak of gain it is not gain per colony, for the colonies vary in strength, but per pound of bees, which seems to be the only just way.

If, then, we may trust our tables, they show for the last half of the summer season:

1st. That for profit, foundation in the brood-chamber for swarms has a decided advantage in point of surplus comb honey over both drawn comb and frames with starters only; that drawn comb stands second, and starters third.

2nd. That in point of total gain in both brood-chamber and surplus, the same order holds, and to nearly the same extent.

3rd. That fairly strong colonies show a very decided advantage over light ones in point of comb honey surplus, and also to a small extent in the total gain.

4th. That light colonies sustain their rate of gain in all cases better than fairly strong ones.

5th. That swarms on starters only sustain their rate of gain decidedly better than do those on comb or on foundation.

6th. That of the light colonies those on starters are decidedly more profitable than those on either comb or foundation.

I ought to explain here that each swarm was hived on a brood-chamber equal to that required to hold five Langstroth combs.

Lapeer, Mich., Sept. 22, 1893.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

Dec. 13, 14.—Eastern Iowa, at Delmar, Iowa.
Frank Coverdale, Sec., Walton, Iowa.

Dec. 19, 20.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRES.—Emerson T. Abbott.....St. Joseph, Mo.
VICE-PRES.—O. L. Hershiser....Buffalo, N. Y.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

When Renewing Your Subscription, why not send along one or more new subscribers, and take advantage of our liberal premium offers on the 5th page of this copy of the BEE JOURNAL? You certainly can easily secure the subscribers, if you will show them that they also receive their choice out of several free premiums. Try it, and see what you can do.

Convention Proceedings

Report of the North American Bee-Keepers' Convention.

Reported for the "American Bee Journal"

BY R. F. HOLTERMANN.

The 24th annual meeting of the North American Bee-Keepers' Association was the most representative and largest gathering of bee-keepers ever held on the American continent, and met at the Louisiana Hotel, in Chicago, Ills., on Oct. 11, 1893. The President, Dr. C. C. Miller, was in the chair.

The convention was opened with prayer by Mr. A. I. Root.

Mr. George W. York, in a pleasant manner, delivered the following appropriate

Address of Welcome.

Mr. President, Ladies and Gentlemen :—

It is with a sincere feeling of pleasure that I am permitted to welcome to our Western metropolis, and at present the Mecca of the world, the grandest association of bee-keepers this continent has ever known. As a representative and resident of "Chicago, the Peerless," I offer to you not only "the keys of the city," that shall open the gates to all its pleasures and wonders, but I also extend to you a most hearty and cordial welcome.

Many of those who are here before me, have come from distant climes, and are now indeed in a "far country," but nevertheless remember that you are still in your "blessed homeland," and that the same God reigns here as in the sunrise East, in sun-crowned Canada, in the sunset West, or in the sun-kissed Southland. I trust that during your brief sojourn within our borders, you may all feel perfectly "at home;" and when your conventional labors are ended, your inclinations for sight-seeing are fully gratified, and you return once more to the loved ones around your various hearthstones, permit me to express the hope that you may carry with you memories that shall serve as an inspiration in future days to nobler and better living, both for Time and for Eternity.

I realize that it is no small thing to welcome to our city the representatives of so honored and ancient an industry as bee-keeping; for ever since bees and honey were found in the ribbed carcass of the lion in the time of Samson, until the present hour, honey and its production have been the delight and profit of the sage as well as the peasant; and to-day I know, from my own experience with men and women, that many of the very best people in all the world are devoted to the honorable pursuit of apiculture.

Bee-keepers of America, while the horologe of time is striking the eleventh hour of the Century, I bid you welcome to Chicago—the eighth wonder of the world. Welcome, also, to the untold splendors and matchless magnificence of the beautiful "White City," within whose doors is the most marvelous collection of the handiwork of mankind that earth ever beheld. Yes, welcome to all these, for *all things* are theirs who believe.

Welcome, then, ye bee-folks, welcome!
To our cities grand and free;
May thy meeting prove as "blessed"
As thy little, busy bee.

GEORGE W. YORK.
Chicago, Ills., Oct. 10, 1893.

After the welcome address, Dr. Miller delivered

The President's Annual Address.

Dear Friends and Fellow Bee-Keepers :—

In looking over the published list of names of those who were to be in attendance at this convention, I could count a quarter of a hundred with any one of whom it would be a real pleasure to spend a solid day in bee-talk. I have no doubt the same thing is true of you. The opportunity of meeting all these and more, at one time and place, is a "red letter" event.

Now, what are we here for? Not for bee-talk alone. No mean part of our enjoyment here, is the cordial greeting and the hearty grasp of the hand. Some of those present we have known for years through the bee-journals without ever having seen them. What a pleasure to meet them face to face. Others, of whom we may never have heard, on acquaintance will be found well worthy our friendship. Still others are old and tried friends, who have a warm place in our hearts, whom we now meet again for the first time in months or years. Our circumstances are specially favorable to social intercourse, so many of us stopping at the same hotel, with our place of meeting under the same roof. Why shouldn't we have a social time?

Allow me to presume upon my position, to deliver a short lecture on etiquette. When two strangers meet, it is not considered good form, in general, for them to speak to each other without the formality of an introduction. In that introducing a mutual acquaintance gives the name of each, practically saying, "Now you two know each other's names; you are each acquaintances of mine, and it is proper for you to talk to each other." In some cases, indeed, the knowledge of the mutual acquaintance goes no farther than to know the name, and in some cases hardly that, as in the case of the man of short memory, on attempting to give an introduction, who said: "Mr. Smith, allow me to introduce you to —er—," then hopelessly floundering in his attempt to recall the name, ended up by saying, "to this stranger."

In the present case, I think you will agree with me that the only condition necessary to make it proper for me to give you an introduction to a third person, is that the third person shall be a bee-keeper, and that I shall know his name. As we are all bee-keepers, that part of the condition is fully complied with, and each one can give his own name, so what need of further introduction? Let me lay it upon each of you, therefore, not to wait for it. If you want to know the exact words for the highest form of politeness, you can say, "My name's Smith, who are you?" And the one who speaks first is the more mannerly of the two.

So much for pleasure.

As to business, I conceive the most profitable part of a convention to be its discussions. Our journals are invaluable, but the rapid exchange of ideas allowed in the discussions of a convention has brought to light many a truth that otherwise would never have become public property. It might be in order for me to recall some of the topics that have interested bee-keepers during the past year, and to suggest which of them may be profitably discussed here, but what need? You know what they are without being told. Our Secretary has selected some, but has wisely left plenty of room for others. These may be brought out through the question-box. Let me earnestly exhort you to make full use of this. If there is a question in your mind as to anything in the realm of practical bee-keeping, put that question in the question-box. It may interest others, as well as yourself, and if not profitable for general discussion, little time need be spent upon it. But in no way can we so well meet the wants of all as by use of the question-box, providing each one uses it.

And now let's get to business.

C. C. MILLER.

On motion by Hon. R. L. Taylor, seconded by Dr. A. B. Mason, it was voted that a committee of five be appointed to arrange the programme for the following sessions, so that every one could attend the sessions when the subjects they would be specially interested in would be presented. The following committee was appointed by the President: Hon. R. L. Taylor, Mr. W. Z. Hutchinson, Mrs. L. Harrison, Hon. J. M. Hambaugh, and Mr. E. Kretchmer.

The report of Mr. Frank Benton, Secretary of the Association, was then read; also letters of regret for their absence from Hon. Christopher Grimm, of Jefferson, Wis., and Mrs. Jennie Atchley, of Beeville, Tex., the latter being prevented from attending on account of sickness in the family. Mrs. Atchley also suggested that it might pay to move bees from Illinois to the South to winter, and then move them to the North in time for the white clover harvest the following season. Mrs. A. L. Hallenbeck, of Millard, Nebr., also expressed regret, as did a number of others who were compelled to be absent.

The Treasurer, George W. York, then read his report, which will appear later on.

At this point a recess was taken for the reception of membership fees, etc.

(Continued next week.)

◆

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

◆

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

OUR
LETTER BOX
REPORTS PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Kept Bees Over 33 Years.

I have kept bees for over 33 years in movable-comb hives, using the Langstroth frame all the time. I have tried 8, 9 and 10 frame hives, but prefer the 9-frame for brood-chamber, and 8 for super. I call my hive the "Ventura Standard." The entrance is full width of the hive, and all frames rest on tin rabbets. The hives are painted pure white. JNO. G. COREY.
Santa Paula, Calif., Oct. 21, 1893.

Plenty of Stores for Winter.

I hardly know whether to make a report or not, but here goes. I got only about 12 pounds of honey per colony. The honey crop is "no good" in southwest Iowa this year. The clover winter-killed last winter, so there was but little bloom from that source, and the fall bloom was not very good; however, the bees have plenty of stores for winter. JERRY SCOTT.
Shambaugh, Iowa, Oct. 24, 1893.

Fairly Good Season for Bees.

The honey season is now over. Let the busy bees rest awhile from their labors, but let us not forget to see that they are prepared for winter, in stores, packing and ventilation. Bees have done fairly well this season here, mine especially. I took 40¾ pounds of nice honey from a medium-sized swarm—hived on the 30th of May, in one of my improved hives. It also filled the body of the hive. I had only two old ones that beat this. I had larger swarms in flat hives, which had as good chances, but did not make the showing. No more flat, shallow hives for me. I took the two "first premiums" on honey at our County Fair, over three competitors. T. C. KELLY.
Slippery Rock, Pa., Oct. 23, 1893.

Loss of Weight in Wintering.

Last fall, about Nov. 30th, I put about 80 colonies of bees into my cellar, with nothing over the brood-frames except a slatted break-joint honey-board, and two or three thicknesses of burlap and brown muslin. I gave plenty of lower ventilation, tiered up 4 or 5 high, and put them in and weighed as they were. They were taken out about April 1st, and the greatest loss of weight was 19¼ pounds per colony, and the least loss was 4 pounds; the others running all the way between. One winter before, it ranged from 4½ pounds to 22 pounds. Now, the question is, being wintered in the same cellar, and the same length of time, why so great a difference in loss of weight? They all came out dry, and in good condition. The average loss per colony was about 11 pounds, which included dead bees as well as honey. O. B. BARROWS.
Marshalltown, Iowa, Oct. 23, 1893.

[Who can give an answer to Mr. Barrows' question? Here is a chance for those who have been experimenting in this line, or for the experiment station itself.—ED.]

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers at the club prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Review	2 00	1 75
Canadian Bee Journal	2 00	1 75
The Apiculturist	1 75	1 65
Progressive Bee-Keeper	1 50	1 30
American Bee-Keeper	1 50	1 40
Nebraska Bee-Keeper	1 50	1 35
The 8 above-named papers	6 25	5 25

Convention Notices.

IOWA.—The Eastern Iowa Bee-Keepers' Association will meet at Delmar, Iowa, on Dec. 13 and 14, 1893. All interested in bee-culture are requested to be there, and to bring with them any thing or fixture that might be of interest to bee-men.
Welton, Iowa. FRANK COVERDALE, Sec.

ILLINOIS.—The Illinois State Bee-Keepers' Association will meet at Springfield, Ill., on Dec. 12 and 13, 1893, in the Senate Judiciary room at the State House. The Illinois State Grange, the Illinois State Horticultural Society, and the various Stock Breeders' Associations meet at the same time, and in the several rooms of the State House. Railroad fare has been secured on the Certificate plan, 1⅓ rate. Those attending, to get the rate, must pay full fare going, and get a Certificate of the agent where the ticket is purchased. Rates at the hotels are secured at $1.50 per day, where two or more days' board is paid. The Horticulturists and Bee-Keepers are to make their head-quarters at the Hotel Palace. Come, everybody, and have a good time.
Bradfordton, Ills. JAS. A. STONE, Sec.

Great Premiums on page 549!

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, in Washington, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

CHICAGO, ILL.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, 5@7c. Beeswax slow at 20c.
Sept. 14, J. A. L.

CHICAGO, ILL., Sept. 15.—The receipts of comb honey have not been in excess of the demand up to this date. We have yet very little surplus. Prices remain at 15@16c. for the very best grades. Discolored combs and the darker grades generally are slow of sale at about 14c. Our sales, however, are chiefly at 15c. We consider this about the best season of the year for shipping and selling comb honey. It stands transportation better than it will when the cold weather comes, and people buy it in larger quantities than they do later in the fall. Extracted is nominal, some sales being made all the time at prices ranging from 6@7c., with some other dark goods a little lower. Beeswax salable at 22c. We would advise those having honey ready to ship, to send it forward during this month, or early next. R. A. B. & Co.

ST. PAUL, MINN., Oct. 9.—Our market for comb honey is improving, and receipts since our last report have moved off fairly well, prices unchanged. We quote best white comb honey 14@15c. for California. Extracted lower under free offerings from the coast; we quote 5½@6c. for white or amber in five-gallon tins. S. & A.

NEW YORK, N. Y., Oct. 10.—Comb honey is in fair demand for fancy stock. Supply is large. We quote: Fancy white, 14@15c. for 1-lb. and 12@13c. for 2-lb. sections. Demand for off grades is very light and slow selling at 12@12½c. for 1-lb. and 11c. for 2-lb. sections. Buckwheat scarce and in good demand at 11@12c. for 1-lb. and 10c. for 2-lb. sections.

The market on extracted is quiet, with plenty of supply. We quote: White clover and basswood, 6@6½c.; California, 5½@6c.; Southern, 65@70c. for choice and 55@60c. for common, per gallon. Beeswax is in fair demand at 23@25c. H. B. & S.

BOSTON, MASS., Oct. 9.—We quote honey as selling fairly well. Best white at 15c. Extracted, 6@7c. Beeswax, 25@28c. B. & R.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

KANSAS CITY, MO., Sept. 14.—Demand is good. Supply light. We quote: 1-lb. comb, 16c.; light weight, 14c. Extracted, white, 7½c.; amber, 6½c.; dark, 5@5½c.
Beeswax, 22@25c. H. & B.

ALBANY, N. Y., Oct. 26.—Honey market is firm, especially for medium grades of small comb, buckwheat and mixed honey being a scarcity of that grade. Fancy white selling at 15c.; mixed, 13@14c.; dark, 11@12c. Extracted slow, all grades.
Beeswax—26@28c. H. R. W.

CINCINNATI, O., Oct. 23.—Demand is fair for best white comb honey at 14@16c. There is a slow demand for extracted at 5@8c. Time killing demagogues seem to bear heavy on all kinds of manufacture.

Beeswax is in fair demand with plentiful arrivals at 20@23c. a pound for good to choice yellow. C. F. M. & S.

CHICAGO, ILL., Oct. 18.—The limited demand for comb honey does not permit our quoting it above 15c., with no sales of white selling below 14@14½c. The stock that we have received this year is of fine quality. Honey should be sent to market at once, so as to be received before the cold weather sets in. Extracted selling at 6@6½c.
Beeswax, 23c. S. T. F. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

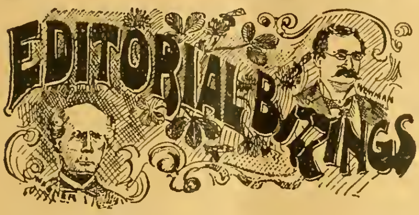
Read our great offers on page 549.

ESTABLISHED IN 1861
THE AMERICAN
OLDEST BEE-PAPER IN AMERICA

BEE JOURNAL

GEORGE W. YORK, Editor.
DEVOTED EXCLUSIVELY TO BEE-CULTURE.
Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., NOV. 9, 1893. NO. 19.



The Great World's Fair is now a matter of history. It was closed on Oct. 30th, and since then exhibitors have been removing their displays. What was a few days ago the "dream city," is now what might be called the "nightmare city," so changed and demolished is its appearance.

The number of paid admissions to the Fair was 21,479,661; and the total paid and free admissions was 27,539,041. The largest single day's attendance was on "Chicago Day," Oct. 9th, numbering 716,000 paid admissions.

We expect soon to continue the illustrations of the various honey exhibits, with descriptions of them.

Take it all in all, the World's Fair was indeed a wonderful affair. Doubtless none now living will see its like again.

◆

Bro. Holtermann, who reported the proceedings of the North American convention for our columns, feels that we did him a slight injustice in our remark, on page 519, about the report being too late to begin it in that issue of the BEE JOURNAL. We intended no reflection upon Bro. H., as he is always very prompt in whatever he agrees to do, but simply thought we owed a short explanation to our readers for not commencing the report in the BEE JOURNAL for Oct. 26th. That's all.

Mr. S. J. Baldwin, of England, called on us last week. He is the able Expert-in-Chief of the British Bee-Keepers' Association, his work being to visit the honey and bee shows held in the various counties of his country, and there deliver lectures upon the subject of bee-culture. Mr. Baldwin is an exceedingly pleasant gentleman—just like all good bee-keepers—and we did enjoy his call very much, though it was awfully short. He expects to return to England about Dec. 1st, after further visiting prominent bee-keepers and bee-supply firms here in America. He was much pleased with the World's Fair, and we trust that he may safely return to his beloved homeland, bearing with him many pleasant memories of his trip to America.

◆

The Marketing of Honey profitably is a greater question to the majority of bee-keepers than is that of its production. There are any number of folks who have no trouble at all to get a good crop of honey, but when it comes to realizing a just profit therefrom, they simply are not able to do it. To discover the reason for this inability to profitably dispose of the result of their toil, or to learn how such ability may be acquired, should be the earnest endeavor of every lover of the pursuit who wishes to be at least justly rewarded for his efforts.

For years we have believed that there never has been, nor can there be, an over-production of honey in this country. What there has been, and always will be, until bee-keepers learn how to rightly dispose of their honey, is *under*-consumption—not *over*-production. How many—nay, how *few*—families in every town or city consume an average of 10 pounds of honey a year? We venture the assertion that not one family in 50 in the city of Chicago uses 5 pounds of honey a year. And why should such be the case, when bee-keepers are selling their fine extracted honey for 5 to 8 cents per pound, and their delicious comb honey for 10 to 15 cents per pound? Even at those prices, where comes in the pay to which the producer is entitled for his labor?

Friends, there is something radically wrong in the disposition of the honey crop of this country, else there would be a more general consumption of this health-giving sweet, and a better profit would be realized by the producer.

Next week we shall try to describe what one bee-keeper has succeeded in doing, in order to make bee-keeping pay as it should. He had 14 colonies of bees this year, his crop of honey was 1,700 pounds, and he realized $400 from its sale. Bee-keeping pays when rightly managed, but there is just as much opportunity for the exercise of wisdom and common-sense in the selling of a crop of honey as there is in its production.

* * *

Mr. Walter Harmer, of Manistee, Mich., a bee-keeper who is well-known to the BEE JOURNAL readers, was married about two weeks ago to Miss Mary Mattison, a young lady residing in the same county. They visited the World's Fair on their wedding trip, and while here Bro. Harmer gave us a pleasant call. It is surprising how many bee-folks have been married recently, and thus making happy homes by the "introduction" of "new queens." We offer to Bro. Harmer and his beloved, as well as to all the rest of the newly-wedded friends, our heartiest congratulations, and wish them long life, and just lots of the "honey" of true love and faithful devotion to each other. Heaven's best blessings be upon them and theirs forever!

* * *

Next California Convention.—On page 393 we had something regarding the next convention of California bee-keepers, as it had been suggested to hold the meeting in San Francisco during the coming Mid-Winter Fair, which begins in that city on Jan. 1st. Mr. J. H. Martin, the excellent Secretary of the Association, has this to say about the matter:

I notice on page 393 attention is called to the plan of holding the next meeting of the California State Bee-Keepers' Association in San Francisco during the holding of the Mid-Winter Fair. According to our adjournment at the last annual meeting, our next meeting will be held in Los Angeles, but inasmuch as the Fair lasts through the winter, there is nothing to prevent the holding of an extra session, which will enable all interested in bee-culture to then meet in San Francisco. It would enhance the value of the meeting to have it backed up with a honey display, but after taking a retrospective view of the way the honey-producing interests of California were shelved at the World's Fair, we have but little encouragement for much of an exhibit at the Mid-Winter Fair.

As far as the general exhibit at the World's Fair was concerned, there was not a dollar given to the bee-keepers for that purpose, and when a well-known and enterprising bee-keeper was named to represent the industry, he was also shelved. The bee-keepers of California were expected to donate enough honey for the exhibit, and to depend upon some person, or persons, unknown to them, to place it upon exhibition, and at the close of the Fair to sell and transmit the proceeds to the exhibitors. I have not heard from the California exhibit lately, but if much honey was contributed, I have not seen the man who made the contribution. Still, I have no doubt that if our representative had been appointed, and the exhibit had been possessed with a head, to work up voluntary contributions, they would have been forthcoming.

I understand some of our World's Fair representatives were in no pleasant mood because California, the great honey-producing State, was not represented in the exhibits, like New York, Ohio, etc. It is safe to say that without a liberal appropriation for the purpose, and the appointment of a person interested in the industry, the exhibits of the above States would have been slim affairs.

It is to be regretted that this State could not have had the encouragement that other States and foreign countries secured, for the exhibit could have been made not only large, but instructive and interesting. I am not looking for much better results at the Mid-Winter Fair, for between the fruit-men (who are crowding the bee-keepers to the tops of the mountains), and the low prices for our product, the California bee-keeper is, as it were, between the Devil and the deep sea, and knows not which way to turn for relief. J. H. MARTIN.

Of course, the members of the Association are the ones to decide whether they will hold an extra session in San Francisco. Whether they do so or not, there ought to be a fine exhibit of honey at the Mid-Winter Fair. California owes it to herself, and to the world, to get up, if possible, even a grander exhibit of apiarian products than was shown by all the exhibitors of the United States, at the recent World's Fair.

"Comfortable Ignorance" about honey is so common now-a-days that some folks, and especially the would-be-wise editors of the daily newspapers, are still permitting themselves to swallow allopathic doses of genuine lies about honey and its production, without its causing any internal disturbance whatever. Here is the latest form of that old, baldheaded lie about honey, this time dressed up in regular German style, and labeled "Artificial Honey-Combs:"

An interesting East Side street vender of the German quarter is a stout, clean shaven, neatly dressed man who bears upon his head a shining tin pan filled with golden honey-comb. A spotless white head-cushion receives the bottom of the pan, and a knife-handle shows in air above the honey-comb. The latter, as well as its sweet contents, looks genuine, and doubtless East Side Germans are tempted by the sight, and are in comfortable ignorance of the fact that artificial honey-combs are now-a-days filled with artificial honey, with the result of deceiving all save the bees.—*New York Sun.*

The above clipping was sent to us by Mr. T. C. Kelly, of Slippery Rock, Pa., with the suggestion that we "ventilate it," and then send a marked copy of the BEE JOURNAL to the New York *Sun*, the newspaper that originally published it for "news." Of course it is a waste of space to call the attention of reading bee-keepers to such a falsehood as the *Sun* so unblushingly published, for they know better — they are not so ignorant as are the sleek "kings" of the daily papers who hash up such trash for their sickly constituents.

The great trouble is that modern scribblers attempt to write about something that is as unfamiliar to them as Latin is to an Italian drone; and yet the paid scrawler is allowed to palm off the result of his ignorant imaginations as something literally true. What a pity that the fool-killer hasn't the time to attend to these "comfortably ignorant" fellows before they get a chance to shove their nonsense upon an unsuspecting public.

Let us hope that such newspapers as the New York *Sun* may be as anxious and ready to retract and give the truth to their readers, as they were willing to publish such deceptive and misleading statements as the one about "artificial honey-combs."

◆

Bees Gorged with honey never volunteer an attack.—*Langstroth.*

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Honey Used in Producing Bees.

How much honey is consumed in producing a given number or amount, say one pound, of bees? This question may have been answered a great many times, but I have not seen the answer. It is a very important question to me, and I presume it is to many of the readers of the BEE JOURNAL.

I. W. BECKWITH.

Ft. Lupton, Colo.

ANSWER.—We have an indistinct impression that somewhere we have seen some estimate made as to the matter in question, but cannot recall where. Can any one else answer the question?

◆

Clipping the Wings of Queens.

I would like to know, through the BEE JOURNAL, if it is an advantage to have all queens' wings clipped, or if it is a disadvantage; and what the disadvantages are, if any. I lost two fine Italian swarms, this season, by just going off and leaving, and I could not find any reason for their leaving. If the queens' wings had been clipped, I suppose they would not have gone.

Tacoma, Wash. G. D. LITTOOY.

ANSWER.—Opinions are divided on this subject. If a queen's wings are clipped it does not in the least prevent the issuing of a swarm. The clipped queen goes out, too, and may go back into the hive on the return of the swarm, or she may wander off to some distance and be found with a small cluster of bees. Sometimes she will enter a neighboring hive and be killed, if the hives stand close together. The swarm which issues may return to the hive after sailing around in the air a short time, or it may not return to the hive until after it has clustered and hung a half hour or longer. But instead of returning to its own hive, the swarm may enter another hive where a swarm has returned previously on the same day, being attracted by the excitement still there.

These disadvantages, to the minds of

some, are so great that they prefer to watch for swarms with unclipped queens. Others argue that it is still worse to have swarms go off to the woods with a flying queen, and clipping the queen effectually bars anything of the kind. Even some who watch for swarms are strongly in favor of clipping queens' wings as a safeguard.

Some claim that a queen with clipped wings is more likely to be superseded. Those who clip deny this, saying that with clipped queens the superseding is promptly noticed, whereas with whole wings a queen may be superseded without the knowledge of the owner.

Possibly you may find it to your advantage to settle the question by using Alley queen-traps. These will work with either clipped or unclipped queens.

One of the Asters.

What is the name of the enclosed flower? It is the best honey-plant that we have here, giving more honey than clover or basswood. It commences blooming in August, and is still in bloom. We have had heavy frosts for some time, but they don't seem to hurt this flower, as my bees are still gathering honey from it. E. W. MOORE.

Seigert, Ind., Oct. 19, 1893.

Prof. Cook answers the above question thus:

The plant is one of the asters, of which there are many species. They furnish much and excellent nectar, and are greatly to be prized as honey-plants. They bloom in August, and furnish nectar until frost comes. Indeed, they often yield after frosts of considerable severity have occurred. They are to be classed with the *Solidagos*, as among our best honey-plants. A. J. COOK.

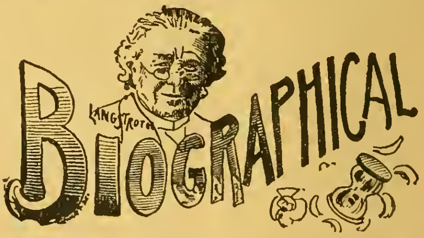
Supers and Combs in Winter.

Will it do to leave the extracting supers and combs on the hives for the bees to take care of through the winter, here in south Florida? If not, what is the best way to care for the combs in winter? The moth is very troublesome, even in winter. J. H. HILL.

Charlotte Harbor, Fla.

ANSWER.—Perhaps the best answer to this question might be obtained from some one of experience in your State, and we shall be glad to hear from such a one. In general, it may be said that it is not a bad thing for the bees, but it may be bad for the combs to be left on over winter. If the moth is troublesome in winter, there can hardly be a worse place for the combs than to have them over a colony of bees to receive its warmth, unless it be that the bees are wide enough awake to travel over the combs and keep them clear of eggs and grubs of the moth. One would hardly suppose it would be warm enough for the moth to lay its eggs, and for the eggs to hatch without its being warm enough for the bees to keep the combs clear, but this is a case in which an ounce of careful observation is worth a pound of supposition.

The combs can be kept away from the bees, by fumigating them with brimstone as often as the little worms are seen, or by keeping them in a tight box or closet where no moth can enter. Perhaps they would be all right to be hung up with a space of an inch or more between the combs.



No. 55.—C. A. Hatch.

This week we present to our readers one of Wisconsin's honored and adopted sons—one who has become prominent as a bee-keeper, fruit-grower and sheep-raiser. Mr. Hatch herhaps has not done so much writing on the subject of bee-culture as speaking, for during the past few years he has spent much time in lecturing at farmers' institutes upon the subjects of bee-keeping and sheep-raising.

Not being personally acquainted with Mr. Hatch, though quite familiar with his name as a progressive and successful apiarist, we will let one who knows him well tell us all something about him and his work. The sketch, as kindly furnished by Mr. "Bee-Keeper," is as follows:

The subject of this sketch was born in Sherburne, N. Y., on June 7, 1848. In 1857, the family removed to Loyd, Richland county, Wis., where they, with other pioneers of that period, were obliged to endure the hardships, deprivations and annoyances incident to a new country. With the exception of four years spent in Kansas, Mr. Hatch has continuously resided in Wisconsin.

Since 1857, since his four years' sojourn in Kansas, he had bought a farm and intended to make his home there, but returning to Wisconsin on a visit in 1874, and meeting old friends, father, mother, brothers and sisters, the influence of home and kindred was strong upon him, and the visit has lengthened into years; still he remains.

C. A. HATCH.

In 1876 Mr. Hatch was united in marriage to Arvilla Freeborn, and two children bless their union. His wife being the daughter of a bee-keeper, perhaps has something to do with his engaging in that pursuit. In 1878, Mr. Hatch bought some wild land in the town of Ithaca; it is on the highlands of Richland county. He at once commenced the improvement of his wild land, and about this time he also commenced the keeping of bees. He has been successful with bees, but not wishing to risk all in one venture, he has added fruit-growing and sheep-farming to his bee-keeping, and has made his mark at all of them. He thinks the three callings work well together.

The sheep are good to turn into the orchard to keep the sprouts and weeds down, and to keep up the fertility of the soil. The bees fulfill their mission by pollenizing and cross-fertilizing the blossoms.

During his Wisconsin bee-keeping experience, Mr. Hatch has kept from 75 to 150 colonies, spring count; his crop of extracted honey has run from 5,000 to 15,000 pounds per season.

He has been President of the Wisconsin Bee-Keepers' Association for nine years, and has traveled with the Wisconsin Institute force for several seasons, and has repeatedly lectured on bees and sheep.

Though a busy man, and with many items of business to attend to, Mr. Hatch does not think this life is all we have to consider, or live for, but finds time to fulfill his obligations as deacon and Sabbath-school superintendent in the Congregational church, of which he has been a member 16 years.

BEE-KEEPER.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.

Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

Dec. 13, 14.—Eastern Iowa, at Delmar, Iowa.
Frank Coverdale, Sec., Walton, Iowa.

Dec. 19, 20.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRES.—Emerson T. Abbott.....St. Joseph, Mo.
VICE-PRES.—O. L. Hershiser....Buffalo, N. Y.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

Have You Read the wonderful book Premium offers on page 580?

RANDOM STINGS

FROM THE STINGER.

"Now a sin in the soul is precisely like de mule,
An' nobody'll play wid it onless he is a fool.
It looks so mitey innercent; but honey, dear, beware!
For altho' de kick is hidden, de kick is allers there."

Like a cobbler, a bee has her wax and awl, always handy.

A bee drowned in its own honey may be said to have met with a sweet death.

An anonymous writer in a recent number of *Gleanings*, has addressed an open letter to our dear old friend Rambler, on the innumerable blessings that attend a man who has entered wedlock. The Stinger doubts that such a honied letter was ever written by one of the "kind-hearted sisters," and that if it was written by such a person, The Stinger would advise her to pack up her trunk and start for California, where she will find the Rambler ready to receive her. Who could resist the charms of a lady who could write such a delicious letter as the one the "anonymous" sister has addressed to our Californian friend?

Speaking of the Rambler, reminds me that many of his lady admirers forget that that genial gentleman is a widower, and that he is pretty well posted as to all those nice things that a woman can do in a house. He learned much from the good woman that was his wife.

Somehow I cannot leave the Rambler without saying something more about him. I remember being in a restaurant with him and some other bee-keepers one morning. We were waited upon by a fair-haired damsel from some one of the Germanic countries. She was fairly good looking, and somehow or other she did not pay much attention to the rest of us, but seemed to take a fancy to Rambler. Now, I am going to tell a secret—one which the good sister who wrote so sweetly in *Gleanings* will be, I am quite sure, highly delighted to know. It is this:

Withal our Californian friend has been in the toils before, he is yet susceptible to the charms of a lovely woman. He was not long discovering that the fair waitress was trying to "make a mash" on him. He was too polite to repulse her winsome ways. I won't say that he spoke German to her, or in any way showed that he was infatuated with her. I might be telling more than my rambling friend would like me to tell, if I did. If I had gone back to that same restaurant afterward, it would not have surprised me one bit to have found him eating pretzels and drinking lager beer with the fair-haired girl above referred to. But, before I forget, wouldn't it be strange to see Rambler drinking beer? He might become as much of a Teuton as A. I. Root, who avows himself to be a pretzel eater; but to drink beer! Ah, but what won't a man do when there is a woman in the case? Just think what A. I. Root, too, might do under like circumstances!

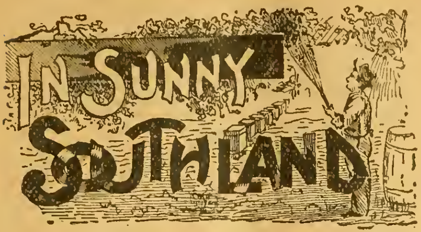
Mr. W. P. Root's reviews of bee-books are very interesting in *Gleanings*, but The Stinger was going to say that the books to be yet reviewed will be pretty ancient if the series of reviews have to drag along as those that have already been noticed, when *Gleanings* of Oct. 1st came to hand, and showed that the ancient books were about exhausted. Yet I would continue to read about these books, even if the series ran into the middle of next year, so pleased was I with the way the writer reviewed them.

Mrs. Harrison has found the three C's for which she "highly prizes" honey, and she tells about them briefly in *Gleanings* for Sept. 15th. They are "cakes, company, and coughs:" Candidly candid, Mrs. H., but how about candy?

The same correspondent also remarks in the same paper that it is extravagance to cook with honey; that she is satisfied if she can get honey for the outside of her cakes, and not the inside. Cooking with honey she considers to be one of the lost arts. The Stinger is sorry that Mrs. Harrison did not visit the World's Fair, for she might have been able to find the lost art, which she complains of, in the Egyptian quarter in Midway Plaisance.

* * *

When Renewing Your Subscription, why not send along one or more new subscribers, and take advantage of our liberal premium offers on the 5th page of this copy of the BEE JOURNAL? You certainly can easily secure the subscribers, if you will show them that they also receive their choice out of several free premiums. Try it, and see what you can do.



CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

The New Bee-Paper Idea Dropped.

MRS. JENNIE ATCHLEY:—I wish you much success in your new home, and trust it will not disappoint your expectations for the coming season of 1894. I hope "In Sunny Southland" will continue to gain ground, as we like to see the South have a voice in the "old reliable" AMERICAN BEE JOURNAL. We hoped to see a Southern bee-paper started by some of our Southern writers. We know of no one that the mantle would fall upon more gracefully than upon the shoulders of Mrs. Jennie Atchley. Again I wish you success.

L. V. ESNEAULT.

Donaldsonville, La.

Friend E., it is with great pleasure that I acknowledge your kind favor. I thank you also for the honor you confer upon me in regard to starting a bee-paper, but, after due consideration and meditation, together with close calculations, I have decided not to attempt a new bee-paper, for the present at least, as it means several years of hard work with a good big *cash* outlay that would be lost before a new paper could be brought up to the paying point. So we have decided to wait awhile.

Notwithstanding this, I here ask the liberty to *thank* one and all that have so kindly encouraged me and pledged themselves to support me in the publication of a Southern bee-paper. Dear friends, please bear with us a little, when we ask your support to help make our already Southern department boom in this "old reliable" AMERICAN BEE JOURNAL; and I here pledge you that I shall do all in my power to make it interesting for you.

Now, let us join hands and make *our* Sunny Southland ring. Again, I thank one and all.

JENNIE ATCHLEY.

Thought a Bee-Wagon was a "Show."

Willie and Charlie have just come in from a 40-mile trip out into Live Oak county, where they have been to transfer a large lot of bees. We are furnishing an empty Simplicity brood-chamber, and transferring a colony into it, for a box-hive, etc. Well, the boys loaded up and struck out, and their outfit attracted attention through the country which they went.

Just as they were nearing Oakville, there was a great crowd of young and old that ran out to see what it was coming, and as they drew up and stopped, the people began to peep in to see what it meant, and they quickly decided that it was a show. We have a two-horse wagon, with a house made on it of wire-cloth, a door behind to put the bees in, and a portion of about 3 feet cut off in front for their horse feed, camping outfit, etc.

Well, now the funny part comes. We have a black shepherd dog, very woolly, and he was sitting in the wire-house upon the bee-hives, and the children discovered him, and shouted out, "Yes, it is a show! Just look at the animals, and nothing to keep them in but that wire screen! Lets get away from here!" Then both old and young retreated.

Now Willie and Charlie have something to laugh about when they think of the "show." However, the people soon found out that it was not a show, but a bee-wagon, and now they are noted all over the country as the "Bee-Hivers." They start to-morrow for another load. They haul 20 hives at a time. They just place the box-hives in the wagon, bottom upward, and do not close any of the hives—just shut the door, and they have a bee-tight wagon. After driving 40 miles, there were not a dozen bees flying about in the wagon when they arrived home. The bees all kept perfectly quiet, and no loss at all.

We have had about 20 bee-trees given to us already. We went out and cut one a few days ago, and it was rich, and we had a fine time. We are going to try to get in 200 more colonies by Christmas. We haul our own bees home to transfer them.

JENNIE ATCHLEY.

Skunks in the Apiary, Etc.

While we are in a sure enough Sunny Southland, we have our pests. The skunks are trying to eat our bees. We have just come from the apiary this moonlight night, where we have been looking out for the rascals. We have hens' eggs lying all over the apiary with strychnine in them, and I saw to-night where the "cats," as the boys call the skunks, have begun eating the eggs, and I suppose we will be able to find plenty of dead "cats" in the morning.

Where skunks are plentiful, they will often ruin an apiary before the owner knows it. I had about 50 colonies nearly eaten up by skunks in 1884, before I found out what was the matter. The skunk will place his skunkship right in front of the hive, and scratch on the hive; the bees will rush out, and he will wallow them with his long bushy tail until they are dead, then he has a fine supper. I noticed a clean place in front of about 20 hives to-day, and plenty of "cat" tracks; so we began at once to plan their destruction, and I hope we shall be able to make short work of them.

If any brother or sister bee-keeper in California, or elsewhere, has had any experience with these pesky things, I will take it as a special favor if he or she will inform me of the best or shortest way to get rid of skunks.

We are yet having fine, warm weather, and bees are gathering some honey, but it is fearfully dry. I hear that cattle are starving for water in a great many of the large pastures. I know of one pasture here near by, that contains 70,000 acres, and I am told there is a cow for every 10 acres in the pasture, so you see there are 7,000 cattle in this pasture, and it takes considerably more water than one might imagine to keep them. They have plenty of water just under the surface a little way, but the wind did not blow for three days, and as the wind-mills were still, no water was drawn, which is the principal cause.

I have a great many nice things to tell about this coast country, as soon as I can have a little time to write it up.

JENNIE ATCHLEY.

Honey as Food and Medicine is just the thing so help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the BEE JOURNAL for description and prices.

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us, as we use many more one-cent stamps than the two-cent kind.

QUERIES AND REPLIES

The Kind of Queen-Excluders Preferred in Hives.

Query 896.—1. What kind of a queen-excluder do you prefer below the upper hive-story? 2. What is your opinion of all-wood queen-excluders?—Illinois.

1. Wood-zinc. 2. It is not practical. —G. M. DOOLITTLE.

1. Zinc. 2. I have never used them. —J. M. HAMBAUGH.

1. The wood-zinc. 2. They're "no good."—R. L. TAYLOR.

1. Zinc. 2. I don't think wood would be reliable.—E. FRANCE.

1. The break-joint honey-board made of "all wood."—MRS. L. HARRISON.

1. Dr. Tinker's queen-excluding honey-board. 2. Very poor.—A. B. MASON.

With a large hive full of combs you do not need a queen-excluder.—DADANT & SON.

1. A sheet of perforated zinc is the only kind that I have tried.—P. H. ELWOOD.

1. Wood-zinc, bee-space, is my preference. 2. I have never used them.—J. H. LARRABEE.

1. The wood-zinc is decidedly the best for me. 2. I have never tried the all-wood excluders.—C. H. DIBBERN.

1. Full sheets of perforated zinc. 2. Wood is apt to warp, swell or shrink, and is easily broken.—MRS. J. N. HEATER.

1. Wood slats with perforated zinc between. 2. Those who have tried them consider them unreliable.—M. MAHIN.

1. A wood-zinc honey-board. 2. I have never used them, but do not think they will give satisfaction.—EMERSON T. ABBOTT.

1 and 2. I never tried either a wood or metal excluder, though I think my preference would be for the metal.—WILL M. BARNUM.

1. Zinc. 2. It will not do to depend upon wood separators in this country,

and if you want something that will exclude, use zinc. Wood *will* go and come, or swell, and shrink in this latitude.—MRS. JENNIE ATCHLEY.

1. I prefer the zinc, with a wooden frame on the outside to keep it in shape. 2. An "all-wood" would be to clumsy for my use.—J. E. POND.

1. I have had no experience with any but zinc excluders. 2. I should prefer to risk the zinc, judging from what others say of the wood.—S. I. FREEBORN.

1. Perforated zinc. 2. All-wood excluders are not reliable, unless the opening is made at right angles with the grain of the wood.—J. P. H. BROWN.

1. I have only used the zinc. 2. I should suppose all-wood might not be reliable, owing to change from moisture. The zinc is very satisfactory.—A. J. COOK.

1. I prefer part wood and part zinc—strips of perforated zinc let into strips of wood. 2. I never saw an all-wood would-be excluder that I would use.—H. D. CUTTING.

1. The one made by Dr. Tinker, a slat honey-board with strips of zinc between, containing two rows of perforations. 2. I have never seen any that I thought equal to wood-zinc.—EUGENE SECOR.

1. For comb honey, I don't need any. For extracted, one with the largest perforations that will keep a queen down. 2. I have seen no reports regarding them, except one or two that were unfavorable.—C. C. MILLER.

1. I prefer a combination of wood slats and zinc strips, though this is much more likely to have the perforations filled with wax and propolis than one entirely of zinc. 2. I have never used all-wood excluders.—JAMES A. GREEN.

1. I prefer a full sheet of perforated zinc with a wood rim. I have never tried wood, but I know it cannot be reliable because it swells and shrinks, and bees can cut the perforations as large as they want them. Bees can cut with their hard jaws anything less hard than glass and metal.—G. W. DEMAREE.

See Our New Premium List on page 581, and then decide to get some of the premiums offered for securing new subscribers for the BEE JOURNAL. We want every one of our present subscribers to help us increase the number of our regular readers. Will you see what you can do toward it ?

CONVENTION
Proceedings

Report of the North American Bee-Keepers' Convention.

Reported for the "American Bee Journal"
BY R. F. HOLTERMANN.

(Continued from page 568.)

During the first recess, and at various times thereafter, the following lists of members were made up :

List of Annual Members.

Rev. E. T. Abbott, St. Joseph, Mo.
R. C. Aikin, Loveland, Colo.
J. Alpaugh, St. Thomas, Ont.
A. E. Ault, North Liberty, Iowa.
C. S. Avery, Omaha, Nebr.
Ezra Baer, Dixon, Ills.
M. M. Baldridge, St. Charles, Ills.
A. Y. Baldwin, DeKalb, Ills.
B. T. Baldwin, Marion, Ind.
G. G. Baldwin, Port Huron, Mich.
J. S. Barb, Oakfield, Ohio.
E. J. Baxter, Nauvoo, Ills.
M. G. Beals, Oto, Iowa.
Frank Benton, Washington, D. C,
Ralph Benton, Washington, D. C.
Dr. H. Besse, Delaware, Ohio.
C. Blackburn, Lamont, Iowa.
Jos. Blanchard, Brimfield, Ills.
M. Blanchard, Hilbert Junction, Wis.
Henry E. Bliss, W. Winfield, N. Y.
W. B. Blume, Norwood Park, Ills.
H. R. Boardman, East Townsend, Ohio.
Elmer Bridenstine, North Liberty, Iowa.
Edgar Briggs, Poughkeepsie, N. Y.
A. A. Brimmer, Hoosick, N. Y.
L. Brock, Littleton, Colo.
James H. Brown, Rochester, N, Y.
Dr. O. S. Brown, Londonderry, Ohio.
H. Burkhard, Malcolm, Nebr.
J. W. Caldwell, Steamboat Rock, Iowa.
A. Christie, Smithland, Iowa.
C. C. Clemons, Kansas City, Mo.
N. Cochems, Los Angeles, Calif.
E. W. Coe, Clarence, Iowa.
W. L. Coggshall, W. Groton, N. Y.
J. N. Conger, Wyoming, Ills.
Prof. A. J. Cook, Agricultural College, Mich.
A. Coppin, Wenona, Ills.

J. E. Crane, Middlebury, Vt.
G. A. Cressy, Hilbert, Wis.
Louis Dadant, Hamilton, Ills.
Rev. T. C. Davies, Idlewood, Pa.
Levi DeFreest, Troy, N. Y.
John Y. Detwiler, New Smyrna, Fla.
Jacob Dickman, Defiance, Ohio.
C. H. Dibbern, Milan, Ills.
L. F Dintelmann, Belleville, Ills.
W. B, Downing, Lexington, Ky.
D L. Durham, Kankakee, Ills.
C. D. Duvall, Spencerville, Md.
P. H. Elwood, Starkville, N. Y.
P. J. England Fancy Prairie, Ills.
J. L. Ernst, Winslow, Ind.
Fred H. Fargo, Batavia, N. Y.
Wm. Filmar, Southwold, Ont.
W. J. Finch, Jr., Springfield, Ills.
M. O. Fisher, E. Liverpool, Ohio.
James Forncrook, Watertown, Wis.
J. A. Foster, Tilbury Centre, Ont.
Oliver Foster, Mt. Vernon, Iowa.
L. D. Gail, Stedman, N. Y.
P. A. Garretson, Hillsborough, N. J.
F. A. Gemmill, Stratford, Ont.
Geo. H. Goodwin, Farmington, N. H.
Jas. A. Green, Ottawa, Ills.
W. H. Green, Denison, O.
Dr. P. C. Gress, Atchison, Kan.
D. H. Gridley, Breakabeen, N. Y.
Henry F. Hagen, Rocky Ford, Colo.
Hon. J. M. Hambaugh, Spring, Ills.
M. B. Hammond, Ellenburg, N. Y.
Gottfried Harseim, Secor, Ills.
S. H. Herrick, Rockford, Ills.
O L. Hershiser, Buffalo, N. Y.
L. Highbarger, Leaf River, Ills.
C. B. Hills, Wellsville, N. Y.
Hon. Geo. E. Hilton, Fremont, Mich.
R. F. Holtermann, Brantford, Ont.
H. S. Huggett, Fulton, Mo.
W. Z. Hutchinson, Flint, Mich.
A. Jacobson, Nordness, Iowa.
Wm. James, Pleasant Hill, Nebr.
Thos. Johnson, Coon Rapids, Iowa.
Sarah E. Joslin Cincinnati, Ohio.
V. W. Keeney, Shirland, Ills.
W. L. Kemp, Farmington, Pa.
B. Kennedy, New Milford, Ills.
T. Frank King, Landover, Md.
Otto Kleinow, Detroit. Mich,
N. A. Knapp, Rochester, Ohio.
Charles Knautz, Galena, Ills.
E. Kretchmer, Red Oak, Iowa.
Miss Valencia Kretchmer, Red Oak, Iowa.
Ward Lamkin, Goodyear's, N. Y.
C. F. Lang, La Crosse, Wis.
J. H. Larrabee, Lansing, Mich.
W. G. Larrabee, Larrabee's Point, Vt.
H. H. Lawrence, Columbia City, Ind.
E. S. Lovesy, Salt Lake City, Utah.
D. B. Lovett, Crestline, Ohio.
W. C. Lyman, Downer's Grove, Ills.
M. H. Mandelbaum, Chicago, Ills.
Henry Marden. Roodhouse, Ills.
P. E. Marston, Beloit, Wis.
Lot Mason, Auburn, Ills.
C. E. Mead, Chicago, Ills,
H. C. Mellon, Dixon, Ills.
Amos Miller, Trail, Ohio.
R. Miller, Compton, Ills.
Isaac Moser, Adamsville, Mich.
John Nau, Middletown, Iowa.
John Nebel, High Hill, Mo.
Dr. Jesse Oren, Mt. Auburn, Iowa.
E. N. Parchall, Cooperstown, N. Y.
C. E. Parks, Watertown, Wis.
Henry N. Patterson, Humboldt, Nebr.
J. A. Pearce, Grand Rapids, Mich.
James Poindexter, Bloomington, Ills.
E. C. Porter, Lewiston, Ills.
W. S. Pouder, Indianapolis, Ind.
Allen Pringle, Selby, Ont.
Geo. W. Redmond, Paris, Ills.
John Rey, E. Saginaw, Mich.
H. E. Reynolds, Westmoreland, N. H.
Huber Root, Medina. O.
L. H. Root, Prattville, N. Y.
W. J. Rundell, Spring Valley, Minn.
Alex. Schmidt, Marysville, Kans.
Adam Schottler, Rockfield, Wis.
Geo. Sharpless, London Grove, Pa.
S. W. Snyder, Centre Point, Iowa.
Geo. C. Spencer, Addison, Vt.
H. D. Spencer, Coventryville, N. Y.
N. Staininger, Tipton, Iowa.
Chas. Stewart, Sammonsville, N. Y.
E. H. Stewart, Niagara Falls South, Ont.
J. C. Stewart, Hopkins, Mo.
L. C. Stewart, Canaseraga, N. Y.
W. H. H. Stewart, Emerson Ills.
Jas. A. Stone, Bradfordton, Ills.
N. L. Stow, S. Evanston, Ills.
E. A. Stratton, Horseheads, N. Y.
I. J. Stringham, New York, N. Y.
B. Taylor, Forestville, Minn.
Hon. R. L. Taylor, Lapeer, Mich.
C. Theilmann, Theilmanton, Minn.
B. J. Thompson, Waverly, Wis.
J. W. Thompson, Lester, Minn.
W. O. Titus, Toledo, Ohio.
L. E. Turner, Parkersburg, Iowa.
W. H. Upton, Morning Sun, Iowa.
J. Van Deusen, Sprout Brook, N. Y.
B. Walker, Evart, Mich.
F. C. Waters, McGregor, Iowa.
D. E. Weage, E. Gilead, Mich.
N. D. West, Middleburgh, N. Y.
J. C. Wheeler, Plano, Ills.
E. Whittlesey, Pecatonica, Ills.
Frank Wilcox, Mauston. Wis.
J. B. Wilhelm, St. Stephens, Ohio.
Florence Williams, Burnum, Wis.
M. L. Williams, Maysville, Ky.
C. E. Wright, Beaver Dam, Wis.
M. Wyrick, Cascade, Iowa.
J. W. Yocom, Williamsville, Ills.
George W. York, Chicago, Ills.

List of Lady Members Present.

Mrs. R. C. Aikin, Loveland, Colo.
" J. Alpaugh, St. Thomas, Ont.
" Dora Baldwin, Marion, Ind.
" Emil Baxter, Nauvoo, Ills.
Miss Alice Baxter, Nauvoo, Ills.
Mrs. M. G. Beals, Oto, Iowa.
Miss Mary L. Beck, Bethel, Ohio.
" Dema Bennett, New Bedford, Ohio.
Mrs. Frank Benton, Washington, D. C.
Miss Zoe Benton, Washington, D. C.
Mrs. C. Blackmer, Lamont, Iowa.
" Mary Blanchard, Hilbert Junction, Wis.
" Henry E. Bliss, W. Winfield, N. Y.
" Godfrey Brown, Bellevue, Iowa.
" Dr. Brown, Londonderry, Ohio.
Miss Jessie Coe, Clarence, Iowa.
Mrs. H. L. Coggshall, W. Groton, N. Y.
" J. N. Conger, Wyoming, Ills.
" A. Coppin, Wenona, Ills.
" Geo. Cressy, Hilbert, Wis.
" H. D. Cutting, Tecumseh, Mich.
" Clara Denman, Pittsford, Mich.
" Jacob Dickman, Defiance, Ohio.
Miss Barbara Dintelmann, Belleville, Ills.
" Marcia A. Douglass, Shoreham, Vt.
" Maggie A. Duvall, Spencerville, Md.
Mrs. Fred H. Fargo, Batavia, N. Y.
" M. O. Fisher, E. Liverpool, Ohio.
" J. N. Heater, Columbus, Nebr.
" Alice E. Helter, Dixon, Ills.
" George E. Hilton, Fremont, Mich.
" H. S. Huggett, Fulton, Mo.
Miss Sarah Joslin, Cincinnati, Ohio.
Mrs. N. A. Knapp, Rochester, Ohio.
" Ward Lamkin, Goodyear's, N. Y.
" H. H. Lawrence, Columbia City, Ind.
" L. P. Lyman, Downer's Grove, Ills.
" Dr. A. B. Mason, Toledo, Ohio.
" Dr. C. C. Miller, Marengo, Ills.
" Dr. Jesse Oren, Mt. Auburn, Iowa.
Miss Caroline E. Pendleton, Portland, Me.
" E. H. Pierson, Kellerville, Ills.
" Anna Rischer, Belleville, Ills.
Mrs. Sallie E. Sherman, Salado, Tex.
" A. A. Simpson, Swarts, Pa.
" Elva Smith, Pittsford, Mich.
" J. F. Spaulding, Charles City, Iowa.
" L. A. Spencer, Addison, Vt.
" C. Staininger, Tipton, Iowa.
" N. L. Stow, S. Evanston, Ills.
" E. H. Stewart, Niagara Falls South, Ont.
" R. L. Taylor, Lapeer, Mich.
" M. Louise Thomas, New York, N. Y.
" B. J. Thompson, Waverly, Wis.
Miss Maria Thompson, Waverly, Wis.
" Emma Wilson, Marengo, Ills.
Mrs. J. W. Yocom, Williamsville, Ills.
" George W. York, Chicago, Ills.

List of Honorary Members Present.

Dr. C. V. Riley, Washington, D. C.
J. W. Pender, West Maitland, Australia.
Dr. H. W. Wiley, Washington, D. C.

List of Ex-Presidents Present.

Prof. A. J. Cook, Agricultural College, Mich.
H. D. Cutting, Tecumseh, Mich.
Hon. Eugene Secor, Forest City, Iowa.
Thomas G. Newman, Chicago, Ills.
Dr. A. B. Mason, Auburndale, Ohio.
Dr. C. C. Miller, Marengo, Ills.
Hon. R. L. Taylor, Lapeer, Mich.

List of Life Members Present.

H. D. Cutting, Tecumseh, Mich.
C. P. Dadant, Hamilton, Ills.
A. N. Draper, Upper Alton, Ills.
Mrs. L. Harrison, Peoria, Ills.
Dr. C. C. Miller, Marengo, Ills.
Chas. F. Muth, Cincinnati, Ohio.
Thomas G. Newman, Chicago, Ills.
A. I. Root, Medina, Ohio.
Ernest R. Root, Medina, Ohio.
Eugene Secor, Forest City, Iowa.

List of Delegates Present.

W. R. Graham, of Greenville, Tex., from the North Texas Bee-Keepers' Association.

W. G. Larrabee, of Larrabee's Point, Vt., from the Vermont State Bee-Keepers' Association.

E. S. Lovesy, of Salt Lake City, Utah, from Salt Lake County Bee-Keepers' Association.

Henry N. Patterson, of Humboldt, Nebr., from the Nebraska State Bee-Keepers' Association.

C. Theilmann, of Theilmanton, Minn., from the Minnesota State Bee-Keepers' Association.

Mrs. M. Louise Thomas, from the Philadelphia Bee-Keepers' Association.

After recess, Prof. Cook, of Agricultural College, Mich., read the following essay, entitled,

Apiculture at Our Experiment Stations

Bee-keeping has merits that very few, even of bee-keepers themselves, rightly appreciate. It not only gathers up a most wholesome and nutritious article of food, which would otherwise go wholly to waste, so far as man is concerned, but it confers an added benefit, that is so great and far-reaching that it is very difficult even to compute it.

There is nothing more certain than that the productiveness of very many of our fruits and vegetables—and those the most valuable—is often tremendously increased by bees, in the important work of pollenizing the flowers. True, other insects aid in this valuable service, but in our Northern land, so many of our insects are killed by the rigors of winter, that in early spring, when most of our fruit-trees are in blossom, there are very few of these "marriage priests" to perform the great service of wedlock in the vegetable world; and so without bees, pollenization would be very scantily effected. There, early flowering vegetables are imported, and so there are not the usual insects to perform this valuable service, and the bees, which are also imported, and which from their habits and man's wise and provident care do not succumb to the winter's cold, become the chief agents in this important work. They are on hand when the flowers first burst forth, in earliest spring, and so celebrate the marriage rites without which these plants would be far less prolific. Is not the man who makes the twin apple replace the single fruit of yesterday, just as worthy as he who multiplies the grass production?

The importance of bee-culture once appreciated and recognized, and it goes without saying that every wise people will not only see that this industry does not languish, but will use every reasonable endeavor to foster its development in every proper way. Thus in urging such action, we need offer no apology; we are only doing what every wise statesman and well-informed, thoughtful patriot would do.

What adds emphasis to this argument, is the exceptional precariousness of bee-keeping as a pursuit. Most kinds of business can face a single "off year" with composure. Even two consecutive seasons of failure may be met with fortitude, unless they occur too frequently; but when three, or even four, years of failure confront the business man, it requires exceptional profits at other times, which bee-keeping is a stranger to, or else great love and enthusiasm for the business, which does characterize bee-keepers to an exceptional degree, to keep the ranks of such employment full. That there has been a great falling off in the business of bee-keeping of late is most certain. For the last two seasons the apple crop in Michigan has been very close to a failure. That it is wholly due to the absence of bees, I would not assert; but that there is an important relation between the two facts, cannot be truthfully denied. To urge all proper means to stay this rapid falling off and its attendant evils, is the duty of every patriotic citizen.

Experimentation and experiment stations are products of our Nineteenth Century civilization. The most advanced nations have done the most in these directions. Germany, to whom all other nations grant supremacy in all that pertains to education, progress, and the real elevation of its people, is at the front in this important work, with France, the United States and Great Britain "a close second." This very fact, were it not for the rich and stupendous results of experimentation as exemplified in the work of such men as Koch, Pasteur, Lawes and Gilbert, Gray and Edison, would be proof enough of the value of experiment stations and their work.

There are to-day few bee-keepers that know all about the business, and they are usually box-hive bee-keepers who have never read the bee-journals, and can tell you all about the "king-bee." The most of us realize that this business is founded more upon genuine science than are most manual labor pursuits, is far from perfect, and that the wisest of the craft has yet much to learn, and that the business has yet unsolved problems of greatest importance. I think there is no question but this business—important as it is—has a very bright future before it. Yet how can it successfully face the repeated disasters of the past few years, except as by study and experiment we learn how we may bridge such disaster. That bright men, full of energy and enthusiasm, to man the experiment stations in the several great honey-producing States, could, and would, with opportunity, accomplish great things for apiculture, is true beyond question.

The United States government, recognizing the importance of agriculture, and the added impetus given to any business as the result of wise experimentation carried on by experts, has donated $15,000 annually to each State and Territory to be expended in carrying on experiments in agriculture. Forty-seven States and Territories have organized under this Act, and have established stations, and have manned them with more or less efficient workers. Thus $705,000, or almost three-fourths of a million dollars, are spent annually by our country to develop new truths, and further the interests of agriculture.

From what I have already stated, it is clearly evident that apiculture is a very important branch of agriculture. To foster its interests is the height of wisdom. Wise experimentation cannot fail to very greatly aid this important industry. Yet in the face of all this, only 4 of the 47 States have done anything to promote the interests of bee-keeping; and in all of these cases money has been given in such a niggardly way that very little could be accomplished.

Think of it! Three-fourths of a million of dollars devoted annually to experiments in agriculture, and probably not two thousand—I think the amount is much less—not one-three-hundred-and-fiftieth of the whole given to aid apiculture! I say without fear of contradiction, that this is a stupendous injustice. I affirm with positive assurance that I am right—that the bee-keepers in every State where bee-keeping is an important interest might, in all modesty, claim $1,000 to be expended annually in behalf of their pursuit. This, in addition to the proceeds of the station apiary would serve to secure one first-class man, the best that could be found, whose time should be given entirely to this work. And can we doubt that rich results would attend such effort? Then $40,000, instead of a scant $2,000, would be expended for such experiments. Even then, apiculture would fall short of its deserts, and would receive less than its exceeding importance might very justly demand.

But how can such action be secured? How can the Board of Directors of the several stations be brought to recognize the rights of bee-keepers, and the importance of their vocation in this very practical manner? It is by no means as difficult an undertaking as would seem. If bee-keepers will wake up to their rights in this matter, and demand recognition and justice, they will receive them as certainly as the leaves fly before the gale. No Board dare disregard a just demand backed by any considerable number of the constituents of its members.

I would suggest that each State association appoint a good committee of live, wide-awake bee-keepers to wait on the Board controlling the station in their State, show the reasonableness of their demands, and press it with the unction that comes from knowing that one is asking only what is his unquestionable right. Then this action should be supplemented by personal letters from a score or two of the most prominent bee-keepers to each of the Board of Directors. These will constitute a battering ram that will raze to the ground the most inexcusable indifference, and secure action from the most conservative directors. These letters should be hand-written and personal, not circulars. Of course, this takes work; but so does every undertaking that has in view any really valuable accomplishment.

A third duty, and the most difficult one of all, will be to decide on the right man to do the experimental work. He must be a keen, able man, full of energy, full of the spirit of genuine honesty, and with natural tact in the direction of experimentation. Good-heartedness, needy circumstances, political affiliations, should all be thrown to the winds. Decide on the very best man in the State, and urge his appointment before the Board, with a force and energy that the excellence of the cause warrants, and a startling success will reward the effort.

If there is not a waking up, and a reform all along the line, it will be because bee-keepers are asleep to their own interests. There is not a case on record, where any considerable number have appealed for recognition, and demanded earnestly their rights in any such good cause, that success has not crowned the effort. Not always at first, it is true, but the delay is never long. This will be no exception. Bee-keepers will wake up to the importance of this matter; they will demand recognition; the Boards will, as they must, concede the justness of the demand; and apiarian stations will then be the rule, and not, as now, the exception. A. J. Cook.

The foregoing essay was then discussed as follows:

In reply to a question, Prof. Cook said that Rhode Island, Iowa, Colorado, Michigan and California had experiment stations in apiculture. He thought the Association should put itself on record in regard to this matter. In the White City the display of the bee-keeping industry was not what it should be.

On motion by Jas. A. Green, of Ottawa, Ills., a committee was appointed to draw up a resolution embodying the views of the Association upon the question. Prof. A. J. Cook, Dr. A. B. Mason, and Jas. A. Green were appointed as such committee.

The question as to whether less or more bees were being kept, received attention. From the remarks made it seemed that bee-keeping was drifting more into the hands of the specialists, who, owing to better facilities and greater experience, were able to produce honey in larger quantities.

The convention then adjourned until 2:00 p.m., when the committee on programme reported, and their report was adopted.

An essay by Mrs. L. C. Axtell, of Roseville, Ills., was then read by Secretary Benton, entitled,

What Experience Has Taught Us the Past Few Years.

Experience has taught us that it would not be wise for us to make bee-keeping a specialty here at our home in the middle of Western Illinois, but that we must let it remain a side-issue, always aiming, however, to let nothing arise that would cause the bees to be neglected if they should need any especial care, and so arranging our work that the honey can be cared for when it does come; and yet that we may not be idle should there be no surplus honey, but will have some other business by which to make our living meanwhile.

Experience has also taught us that a large brood-chamber pays best in our locality, one season with another, unless we are sure of having time and help to take out combs at the beginning of white clover bloom, so as to crowd the bees into the sections, and to replace them at its close; and we reduce the brood-nest for the winter only in case the combs can be given back in the spring. This taking out combs and returning them at different times of the year from a hundred or several hundred colonies of bees, is what makes bee-keeping very laborious, especially to persons in ill-health, or who already have much other work on hand; and if it so happens that we get the brood-nest contracted, and sickness comes on, or our help fails us, and we are unable to get the combs given back to the bees, the colonies grow small, and are injured.

Our experience convinces us that when colonies of bees must be left to take care of themselves the season through, they do not do so well with small brood-nests as if given large ones. Mr. Axtell and I would call eight Quinby frames, or ten Langstroth frames, a sufficiently large brood-nest.

Another thing we have learned (though a long time in learning it) is, that, so long as these poor seasons last it does not pay to try to build up weak colonies by feeding or otherwise, except we have valuable queens which we wish to keep, or except just at the swarming time. When we had our good seasons some years ago, we thought it did pay. Feeding and nursing weak colonies so often causes silent robbing, that when one expects to find he has the colony built up it is still weak and short of stores, and dies the following winter or spring.

And again, we have learned that a good colony with a large brood-nest left alone, neither brood nor honey being drawn from it, will seldom pass a season without getting enough to winter on, will give its owner but little care, will generally supersede its old queen in due time, and can be relied upon to give a good return whenever the weather and the secretion of nectar render such possible.

MRS. L. C. AXTELL.

Roseville, Ills., Sept. 20, 1893.

The essay of Mrs. Axtell was discussed as follows:

Mr. Wilcox—I think the points in the essay are more particularly applicable to the locality of the writer.

R. L. Taylor—The writer of the essay evidently likes a large brood-chamber on account of the trouble of handling combs. Why not overcome the difficulty by using the Heddon hive?

R. F. Holtermann—I think if experience has taught us anything, it has taught, during the past five or ten years, that we cannot succeed in bee-keeping without devoting time to the business; neither can we expect to succeed without experience.

C. P. Dadant—Colonies that do not swarm for years, will supersede their queen as readily as those that do swarm.

A. N. Draper—For comb honey a small hive will do; for extracted honey we want to use a large hive.

R. L. Taylor—What does Mrs. Axtell produce, comb or extracted honey? The general impression appeared to be that she produced comb honey.

Mr. Blanchard—Will the hive which will allow us to give the bees the least attention, be the best, or the hive from which we can get the best results? I think the latter. I know of no business which will give us results—good results—without work.

R. L. Taylor—I think that feeding should be done in the fall of the year. Last spring I examined colonies. I use the New Heddon hive, and at that time, in many instances, I remove one super, leaving the bees a shallow one only. The prospects were bad, yet they increased wonderfully. I put a case of sections on the single story hive, and they gave me as much section honey as those occupying two stories. I fed a ton of sugar in the fall for stores, and I consider it paid me well.

(Continued next week.)

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

CONTRIBUTIONS

How to Extract Honey in the Fall or Winter.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

I see that some have trouble in getting thick honey out of the combs at this time of the year, and later on in the winter, if the honey is left in the combs until that time. As I have had some experience in this line, I will give it for the benefit of the many readers of the AMERICAN BEE JOURNAL.

Were it not that a much better article can be produced by leaving the honey on the hives until the end of the season, or until all is thorougly sealed or ripened, I should be greatly in favor of extracting every third to fifth day during the season; but after repeated trials of this kind, with nearly all kinds of artificial evaporation, I find that I cannot produce nearly so good an article of honey out of this thin nectar, as can be produced by leaving it in the hives for the bees to care for. Hence, if we would have the best honey which can be produced, it becomes a necessity that we should extract thick honey.

When I received my first extractor, it came in mid-winter, and being one of those who cannot wait long to see a new invention work, of course I must try it immediately; so I repaired to the shop, took down some frames of honey I had stored away, uncapped them and tried the machine. As might be expected, the thing was a failure, especially as this extractor was one with no gearing, but whose can and all revolved by means of a peg or handle placed near the center of the can. Upon going to bed that night I thought, of course, I could not succeed in throwing out frozen honey, for the extractor was made for use in the summer time when the weather is hot.

After some study and planning, the next morning found me up bright and early, with several combs hanging up near the ceiling of a small room, with a fire built and a thermometer hanging close by the combs of honey. I soon had the temperature of the room at the ceiling up to 95°, where I kept it for six hours, as I remember of reading in some of Quinby's writings, that, if a comb of solid honey were to be given to a colony of bees in winter, it should be left in a warm room at least half a day before being set in with the bees, so that it would become thoroughly warmed through.

In the afternoon I again tried the extractor, when I could easily throw out 95 per cent. of the honey the comb contained. Even what was partially candied could nearly all be thrown out, and the combs hung away so clean that no bees were needed to clean them off to keep them from draining.

By hanging the combs near the ceiling of the room, it does not take an extremely hot fire to keep the temperature at from 90° to 100°, or even higher, if you have old, tough combs. I keep the combs in just so much heat as they will bear without breaking down, for six hours, and where kept in this way no one need have a pound of honey left in them, as has been reported by some.

Another thing, the extracting, when done in this way, comes when there is little else to do, as fall and early winter is comparatively a time of leisure with most bee-keepers; and by tiering up and leaving the honey on the hives until fall, the extracting can be done when the cares of the busy season have passed by, and a quality of honey obtained which shall be of benefit to our market, instead of a curse, as unripe honey always is a curse to any market where put on the same.

EXTRACTING PARTLY-FILLED SECTIONS.

Since I found out this way of extracting honey, I always leave my partly-filled sections until I am through the hurry of my summer and fall work, unless I wish to feed the honey in them to the bees, and have no difficulty by this plan of getting out from 95 to 98 per cent. of the honey in them, without injury to the most fragile combs. To best extract the honey from these sections, I make a frame to hold the largest number of sections possible, consistent with its going in the extractor, having it so accurately made that a given number of sections will fit into it rather tightly, the last one in, when properly made, keying the whole, as it were, so they can be handled as one frame, which simplifies the work very much.

Where the combs are not attached to the sides and bottoms of the sections, as many of them are liable, owing to the sections being only partly filled, it is best to turn slowly, until a part of the honey has gone out, when they should be reversed in the extractor, the other side gotten out clean, when they are reversed again, and the honey from the first side thrown out clean. This saves injuring the combs that are only slightly attached to the sections, and where from 10 to 16 sections can be placed in one holder, this extra reversing takes but little extra time. If these slightly attached sections are sorted out, there need be but a few frames full of them to turn in this way.

Borodino, N. Y.

The First Importation of Italian Bees, Etc.

Written for the American Bee Journal

BY DR. JESSE OREN.

Mr. Editor:—I wish to give some historic information. I brought the first Italian queen west of the Alleghany Mountains in July, 1860. Now, Mr. Newman, in his essay on the "Progress of the Past 50 Years," read at the Keokuk, Iowa, meeting of the North American Bee-Keepers' Association, gave Mr. Parsons as the first importer of the Italian queen. I called his attention at the time to the error, and the President, Mr. Taylor, requested a correction.

After returning home, I feared that possibly I had made a statement lacking in courtesy to Mr. Newman, whom I always held in high esteem. I therefore wrote an apology to him. I herewith send you a part of two letters from Mr. Mahan to me, that will corroborate what I have said and claim; also a document showing the competitive ire which grew up between Messrs. Mahan and Parsons about the purity of Mahan's bees.

The connection of the Rev. L. L. Langstroth with the Parson bees gave them a notoriety wide spread at the time. I was acquainted with Mr. Langstroth while living on Turner's Lane, in Philadelphia, in 1850-52, and at the very time he made his discovery. All this, of course, amounts to nothing so far as I am in question.

I am in my 70th year, and am soon to pass away. I am still entertained in the bee-yard. I have been in the business since 1858. I am now running two bee-yards—one here in Iowa, of 200 colonies, and one in Daytona, Fla., just north of Mosquito Inlet. It may be interesting to know that my colony on the scales swarmed on March 13th, and then up to March 24th, gathered 38 pounds of honey from orange bloom; from May 4th to June 4th, from saw palmetto it gathered 62 pounds; and from July 17th to Aug. 28th, from cabbage palmetto, 49 pounds. It was all comb honey.

La Porte City, Iowa, Sept. 23, 1893.

[We referred the foregoing letter by Dr. Oren, to Friend Newman, the former editor of the Bee Journal, who adds the following paragraphs:—Ed.]

My reply to the foregoing is very simple. I well knew that there was a controversy concerning priority in importing Italian bees, and carefully avoided taking sides, in my essay read before the North American Bee-Association at Keokuk, Iowa, in the fall of 1890.

After mentioning the fact that, in 1856, Mr. Wagner *attempted* to import bees from Italy, but failed to get them to our shores *alive*, I added:

> "In 1859, Messrs. S. B. Parsons, of New York, and P. J. Mahan, of Pennsylvania, were the first to land Italian bees in North America."

I coupled these names together, and said that they were the first to succeed in bringing these bees to our shores—giving both of these gentlemen the credit of priority, but did not attempt to decide which of the two was the first to land them. I have never been able to decide that question in my own mind. [See page 3, column 2, of the Official Convention Report for 1890.]

I can now remember nothing of the matter, and have to depend entirely upon the "Report of the Proceedings," as published. Memory fails me to recall what Dr. Oren may have remarked at the time, but I think it must have been "courteous," for, if I remember correctly, I have always found him to be kind and gentlemanly. Apology, therefore, if made, must have been considered unnecessary, and it, too, has been entirely forgotten.

As no Italian queens were imported until 1859, Dr. Oren must have been one of the early purchasers in order to have the distinguished honor of having "brought the first Italian queen west of the Alleghany Mountains." A motto which I highly prize is, "Honor to whom honor is due." Thomas G. Newman.

Chicago, Ills., Oct. 27, 1893.

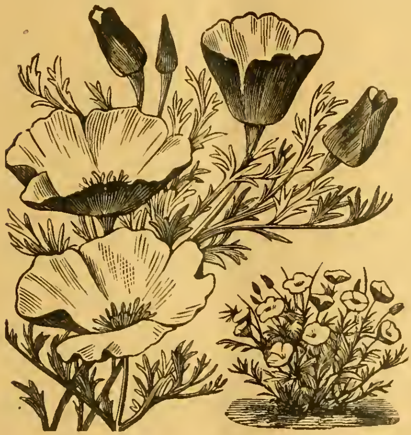
California Poppy—The State Flower.

Written for the American Bee Journal

BY W. A. PRYAL.

This flower has been chosen as the State flower of California. It is not a pretty flower by any means; in fact, there are hundreds of others that are far prettier, but there are none in this perennial sun-land so common. It is to be met with everywhere, except on the desert.

The *Eschscholtzia*, or "California poppy," as it is called, is a native of California, and was never seen elsewhere until discovered in that State. It has since been introduced into various countries as a rare garden flower; several new varieties have been raised by gardeners who have given it their careful study, but none of these newer sorts are as dazzling as the bright golden-orange variety that is to be found growing in patches of a thousand acres at a time in its native home.



California Poppy—Plant and Flowers.

The only regret a bee-beeper has when he sees one of these flowers is, that it is not a honey-yielder. It has no more honey in it than has the bricks in McGinty's back yard. What makes him regret this all the more is the fact that it is to be found in bloom every month in the year, though its regular season of infloresence is during spring. But it has one redeeming feature, and that is, that it is somewhat of a pollen-producer. This is no consolation to the California apiarist, for there is no lack of such plants in that State.

I am sure, for all these reasons, that if the bee-keeper was to vote on the choosing of a State flower, the subject of these few short paragraphs would not get his vote.

North Temescal, Calif.

[The engraving used in the foregoing gives a correct representation of the flowers of the California poppy, but it is rather too much reduced in size; it should be more spreading, and have from 30 to 40 flowers. Those who plant flowers for pollen, should include the California poppy. It is easy to cultivate.—Ed.]

Importance of Properly Preparing Bees for Winter.

Written for the American Bee Journal

BY H. F. COLEMAN.

While I am now writing, we are having a fall rain, and I am reminded that preparations should now be made to winter our bees. It makes no difference where we are, whether North, South, East or West, too much stress cannot be laid upon proper preparation for the wintering of our bees. Of course, preparations for wintering in the frozen regions of the North means something more than preparations for wintering in Tennessee, but the principle is the same here and there, and anywhere.

Poor crops of honey invariably follow poor wintering, and that without reference to the season; and when such crops come we hear much talk of poor seasons, and that bee-keeping don't pay, etc. At such times we forget that we are probably reaping our just rewards; that we have fallen into a slip-shod way of taking care of our bees, and that we are only receiving slip-shod results. If we could only remember that, if bee-keeping is worth any attention at all, it is worth all the attention it deserves, and act accordingly, I am quite sure our results would be better.

DON'T ADVISE USING TOBACCO.

No, Bro. York, I would by no means advise a non-user of tobacco to try an experiment that would fasten upon him the tobacco habit. The suggestion made by me on page 436, that by running down the nerves by the use of tobacco, it could be demonstrated that the state of the nerves has much to do with the pain of bee-stings, was not intended as an argument for the use of tobacco. The fact that I spoke of the use of tobacco as running down the nerves, would give any one an idea that I looked upon the use of tobacco as deleterious to health, which I do, and I would by no means advise any one to become habituated to its use.

Sneedville, Tenn., Oct. 13, 1893.

OUR
LETTER BOX
REPORTS & PROSPECTS &c.

☞ **Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.**

Bees Did Splendidly.

I am well pleased with the Bee Journal, and was sorry that I had not been taking it for six or eight years, as I have been keeping bees about that long. I have on hand about 75 colonies. I winter my bees in small houses holding from three to six hives, by packing straw or chaff, and with cushions on the brood-frames. I find in this way I only lose 8 or 10 per cent. I have not fed over half a barrel of sugar in five or six years. My bees did splendidly this year. Alfred Fields.

Marion, Ind., Oct. 22, 1893.

After-Swarming—Diseased Bees.

On page 534, Mr. R. Dart gives a method of preventing after-swarms which works well, but the amount of hive turning required is too much for a woman or a feeble man. I have a plan on the same principle, only in place of turning the hive the second and third times. I only reverse the entrance by taking the end cleat of the bottom-board and putting it in front in the entrance, and the same time change the looks of the hive by putting a coffee sack or other cloth over the front of the hive; and on the eighth day after swarming remove the old hive to a new stand.

But I have worked out a new and better way yet, but have only tried it to a limited extent. This last plan is promising great success, and I may give it later on.

I am very fond of bees, and make new experiments all the time. I used up 2 colonies of bees last season, lost several good queens by clipping their wings too short, and just now I notice a disease among the bees, especially the Italians, which puzzles me. The diseased bees are young, but old enough for field bees. They lay in front of the hives in the morning, with their honey-sacs full of honey, the same as if they were chilled, and, if put in a warm room, they come to life again. I am sure these bees are not bloated, nor are they filled with water. They are filled with pure honey.

If anybody knows something about a case like the above, please let us hear about it through the Bee Journal.

Chippewa Falls, Wis. August Bartz.

My Experience with Bees.

Last fall I bought 2 colonies of bees for $5.00, and moved them home one fine evening. Then I heard there was a bee-keeper one-half mile east of our town, so I went to see him one day, to find out something about bee-keeping. He told me all he knew about bees. He had an apiary of 135 colonies, and was a reader of *Gleanings*. I bought of him that paper for 1884 and 1885 for $1.00, and commenced to read about bees, and got immensely interested in bee-keeping. Shortly afterward I bought 8 more colonies of bees.

On Nov. 19th I put my 10 colonies into the cellar. The honey crop is poor here. I got 40 pounds of comb honey, and 30 pounds of extracted honey, with no increase. I think I will have better results next year. Next winter I shall prepare some of the colonies for wintering on the summer stands.

I like the American Bee Journal, and could not keep bees without it.

Axel R. Johnson.

Cambridge, Ills., Oct. 23, 1893.

The Treatment of Foul Brood.

It is obvious to me that there has been enough said in the columns of the Bee Journal about the much-dreaded disease of foul brood, which, if heeded, would enable all bee-keepers, who have foul brood in their apiaries, to rid them of that plague. But there are so many crosses and different opinions that it is hard for one to tell which remedy will produce the best result, if we have had no previous experience along the line.

I cured the disease in 30 colonies by putting the bees in clean hives, on frames with foundation starters, letting the bees build new combs. Mr. McEvoy says that in some cases he succeeded in this way, when the disease was not very bad. My bees were not rotten with the disease, but I could find some 200 or 300 dead larvæ in each colony. I know of another apiary that was cured of the disease in this way, after running from 85 colonies down to 15. This was done three years ago, and it has not had any foul brood since.

Mr. E. R. Root's description of the disease on page 374, just fits my case exactly, and all the other authorities I have ever read on symptoms of it, thus making it plain that I had to contend with the same kind of foul brood that they did.

It seems to me that it would be a good time for some of the bee-keepers in these United States, who don't believe Mr. McEvoy can cure foul brood, to open up their hearts towards Father Langstroth by backing their judgment and sending some of their bad foul brood, and some money with it, to Ontario, and have his cure tested, and thus make some money for Father Langstroth, and themselves also, if Mr. McEvoy doesn't get it.

I wish to say to Mrs. Atchley, that I can cure the worst case of foul brood she can produce, with Mr. McEvoy's remedy, with the exception that I disinfect the hive, but I would not be much afraid of the old hive, for I know his cure is all right up to the not disinfecting the hive, and I believe he knows what he is talking about when he says the hive does not contain the disease,

I fear there are some bee-keepers who are trying to cure foul brood in localities where there other bees having foul brood. After trying what would be a permanent cure, their bees will get the disease somewhere, and bring it to their own hives. Then the apiarist will cry out against the remedy he tried, and if some one else says it is a success, he is ready to say it isn't; that he tried it, and it would not cure the kind of foul brood his bees had. Bear these things in mind. J. L. WOOLDRIDGE.

Ennis, Texas.

Bee-Keeping in Louisiana.

Since our last report of the honey production in this section, we have received very flattering reports from the bee-keepers throughout Louisiana and Texas, Mississippi and Alabama. Our own apiary of 500 colonies has averaged 150 pounds per colony. Our bees are still gathering honey from the golden-rod, and the nectar from this plant is as light colored as that gathered from our celebrated tuopelo gum.

I visited the city of New Orleans not long since, and found a good deal of glucose being sold there. Our bee-keeping congressmen should look to their brother bee-keepers' interest, and put a stop to the adulteratiion of honey by unscrupulous persons.

The season is about over in this section, and the busy bee will soon retire to her winter quarters to rest her wings until the flowers of spring come again.

L. V. ESNEAULT.

Donaldsonville, La., Oct. 18, 1893

Best Season in Four Years.

The past has been the best season we have had for honey in four years. I put into the cellar, on Nov. 25, 1892, 14 colonies; I lost 2 in wintering, and one from dwindling after they were put on the summer stands, thus leaving 11 to commence the season with — 7 in frame and 4 in box hives.

I increased to 22 colonies, lost one with worms, and 4 skipped for the woods. I have taken off 150 pounds of extracted honey, and 550 pounds of comb honey, and have now 21 colonies to put into winter quarters. All are apparently in good condition for wintering except one, which was five weeks queenless in July and August, three weeks hopelessly so, making them weak in numbers, and light in stores, but I shall try to feed them up and get them through. I transferred the 4 colonies from box to frame hives about the middle of July. S. LA MONT.

Jarrett, Minn., Oct. 26, 1893.

Convention Notices.

IOWA.—The Eastern Iowa Bee-Keepers' Association will meet at Delmar, Iowa, on Dec. 13 and 14, 1893. All interested in bee-culture are requested to be there, and to bring with them any thing or fixture that might be of interest to bee-men.

Welton, Iowa. FRANK COVERDALE, Sec.

ILLINOIS.—The Illinois State Bee-Keepers' Association will meet at Springfield, Ill., on Dec, 12 and 13, 1893, in the Senate Judiciary room at the State House. The Illinois State Grange, the Illinois State Horticultural Society, and the various Stock Breeders' Associations meet at the same time, and in the several rooms of the State House. Railroad fare has been secured on the Certificate plan, 1⅓ rate. Those attending, to get the rate, must pay full fare going, and get a Certificate of the agent where the ticket is purchased. Rates at the hotels are secured at $1.50 per day, where two or more days' board is paid. The Horticulturists and Bee-Keepers are to make their head-quarters at the Hotel Palace. Come, everybody, and have a good time.

Bradfordton, Ills. JAS. A. STONE, Sec.

Convention Photographs.—Bro. Hutchinson's love for his new hobby, photography, is so great that it led him to bring his camera with him to the late convention in Chicago, where he made several photographs of the bee-keepers present. Of these, two are fairly good, showing most of the faces quite clearly. One of the pictures is the interior view, showing the bee-keepers in the hall, and the other is the group that gathered on the steps of the hotel towards evening on the first day of the convention. He can furnish these photographs at 50 cents each. He also made excellent photographs of nearly all of the honey exhibits at the World's Fair, which he can furnish at the same price. The size of the pictures is 5x8 inches. Address Bro. H. at Fint, Mich., and get what pictures you want.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, in Washington, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

CHICAGO, ILL.—Comb honey is coming in plentifully—most of it fancy and No. 1 white. White extracted scarce with plenty of inquiry for same. We quote: Fancy white, 16c.; No. 1 white 15c.; fancy amber, 14c.; No. 1 amber, 14c. Extracted, 5@7c. Beeswax slow at 20c.
Sept. 14, J. A. L.

CHICAGO, ILL., Nov. 1.—Fancy white comb honey brings 15c. per lb. Grades not grading first-class are not selling at over 14c., as there has been quite a quantity of California honey received here, and is offered at 14c. The quality is superior to most of that we receive. Dark comb honey sells slowly at 12@13c. Extracted ranges from 5@7c., according to color, quality, flavor and style of package. The trade in honey has been large this season.
Beeswax, 22c. R. A. B. & Co.

ST. PAUL, MINN., Oct. 9.—Our market for comb honey is improving, and receipts since our last report have moved off fairly well, prices unchanged. We quote best white comb honey 14@15c. for California. Extracted lower under free offerings from the coast; we quote 5½@6c. for white or amber in five-gallon tins. S. & A.

NEW YORK, N. Y., Nov. 1.—Our market on white honey is weak and shows no activity. Supply is plenty, arrivals are large, and the demand is light. Hence prices have a downward tendency and concessions have to be made to effect sales. We quote: Fancy white, 1-lbs., 14c.; 2-lbs., 12c.; fair white, 1-lbs., 12c.; 2-lbs., 11c.; buckwheat is scarce—1-lbs., 11@12c.; 2-lbs., 10c. The market is well stocked with extracted of all kinds. We quote: White clover and basswood, 6@6½c.; California, 5½@6c.; Southern, 55@65c. per gallon.
Beeswax, 24@25c. H. B. & S.

BOSTON, MASS., Oct. 9.—We quote honey as selling fairly well. Best white at 15c. Extracted, 6@7c. Beeswax, 25@28c. B. & R.

CINCINNATI, O., Oct. 23.—Demand is fair for best white comb honey at 14@16c. There is a slow demand for extracted at 5@8c. Time killing demagogues seem to bear heavy on all kinds of manufacture.

Beeswax is in fair demand with plentiful arrivals at 20@23c. a pound for good to choice yellow. C. F. M. & S.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

KANSAS CITY, MO., Sept. 14.—Demand is good. Supply light. We quote: 1-lb. comb, 16c.; light weight, 14c. Extracted, white, 7½c.; amber, 6½c.; dark, 5@5½c.
Beeswax, 22@25c. H. & B.

ALBANY, N. Y., Oct. 26.—Honey market is firm, especially for medium grades of small comb, buckwheat and mixed honey being a scarcity of that grade. Fancy white selling at 15c.; mixed, 13@14c.; dark, 11@12c. Extracted slow, all grades.
Beeswax—26@28c. H. R. W.

CHICAGO, ILL., Oct. 18.—The limited demand for comb honey does not permit our quoting it above 15c., with no sales of white selling below 14@14½c. The stock that we have received this year is of fine quality. Honey should be sent to market at once, so as to be received before the cold weather sets in. Extracted selling at 6@6½c.
Beeswax, 23c. S. T. F. & Co.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs

Convention Badges.—There are about forty of the beautiful Badges left over, of those used at the recent meeting of the North American. These we offer as "souvenirs" of the Columbian meeting. Price, postpaid, 15 cents each, or two for 25 cents. Whatever is realized on the sale of these Badges will be turned into the treasury of the Association. Don't you want one, reader, to keep as a memento, even though you were not fortunate enough to be present? They are red, with pin at the back, and neat bow of white and blue ribbon at the top. It is a patriotic Badge, as you will note that red, white and blue are represented in its make-up. Better have this neat and pretty souvenir.

Established in 1861

THE AMERICAN

Oldest Bee-Paper in America

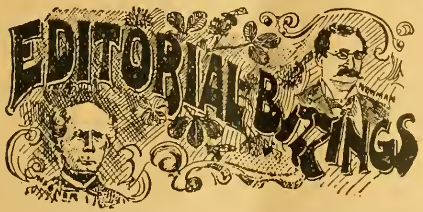
BEE JOURNAL

GEORGE W. YORK, Editor.

DEVOTED EXCLUSIVELY——
——TO BEE-CULTURE.

Weekly, $1.00 a Year.
Sample Free.

VOL. XXXII. CHICAGO, ILL., NOV. 16, 1893. NO. 20.



Bro. G. K. Hubbard, of Ft. Wayne, Ind., has gone with his invalid wife to reside in Riverside, Calif., for a year or two. His bee-supply business will be continued as formerly at Ft. Wayne, in care of a "trustworthy foreman," and a branch will be started at Riverside. We trust that Mrs. Hubbard's health may be entirely restored, in that "land of sunshine and flowers."

* * *

Mrs. E. Whitcomb, of Friend, Nebr., has made an enviable reputation for artistic designs in figures, flowers, etc., formed out of pure beeswax. The thousands who visited the World's Fair, will remember seeing samples of her skill in the Nebraska honey-case. Mrs. W. was in Chicago when the Fair closed, and before leaving for her Western home, she presented to the editor of the BEE JOURNAL one of the beautiful framed pieces of cross and flower work, besides other flowers, ears of corn, and "Angel at Prayer"—all being made of beeswax, with her own deft fingers. We wish here to express our thanks to Sister Whitcomb for her very pretty gifts, and to assure her of our appreciation of her kindness and good-will. We shall highly prize the wax-work, and will take much pleasure in showing it to future callers at the BEE JOURNAL office.

Bro. W. P. Root is still taking "Another Peep at the 'Good Old Times,'" in *Gleanings*, which is very interesting. Why wouldn't it be a good thing to extract the best parts of all those old bee-books, and publish them in a new volume? Then perhaps call it a history of bee-culture. The author, or compiler, might go back to the earliest records of bee-keeping, and bring it down to date. It seems to us that such a book would find sufficient demand to warrant its publication, and we think that Bro. W. P. Root would be the right man to "father" it. We wonder what Bro. A. I. Root thinks of this.

* * *

The World's Fair Bee-Folks have been exceedingly kind to us the past six months, and we enjoyed the privilege of meeting them almost weekly during the Fair. We were again at the honey exhibit the third day after the Fair closed, and while viewing the taking down of the honey, etc., we were very kindly remembered by the Superintendents of the various State honey exhibits. Among them was Bro. Whitcomb, who gave us a sample bottle of Nebraska's famed heart's-ease honey, rich and thick, weighing 13 pounds to the gallon.

We also received a bottle of metheglin from Mr. A. C. Davidson, of Omaha, Nebr. This will be kept *only* for exhibition purposes in our office, as it would hardly be called a "soft drink." We promise not to allow any of our prohibition or other friends to get hold of that bottle, as we don't want to be guilty of "putting the bottle to our neighbor's lips."

Bros. Hambaugh and Stone, of the Illinois exhibit; Bro. Cutting, of the Michigan exhibit; Bro. Pringle, of the Ontario exhibit; Bro. Kretchmer, of the Iowa exhibit; and Bro. Wilcox, of the Wisconsin exhibit—all presented us fine samples of either comb or extracted honey from their various cases. With so much honey to put on our buckwheat cakes the coming winter, both the editor and his wife ought to keep pretty sweet. (Please don't understand us to even hint that Mrs. Editor really *needs* honey in order to be "sweet," for it wouldn't be true. But, then, honey is a great "sweeten(h)er," isn't it ?)

Again we wish to thank our World's Fair honey friends for their generosity, and also for their kindly interest in us and the BEE JOURNAL. We trust that the friendships we have formed the past few months may be lasting and ever mutually pleasant.

◆

The Convention Photograph—the one taken of the bee-keepers inside the hall—is commented upon by Bro. Root in last *Gleanings* as follows:

> Toward the center of the room will be found the editors of the *Review*, *Canadian Bee Journal*, the AMERICAN BEE JOURNAL, and *Gleanings*. The last two sit in one chair, arm in arm. While this was purely accidental (there being a scarcity of chairs), we are glad to say that it indicates pretty fairly that the editors of two bee-journals cannot only be on good speaking terms, but they can sit together in one chair, sleep together in one bed, or ride together in one sleeper, all of which is literally true, as we speak from personal knowledge. At one other time Bro. Hutchinson and Bro. Holtermann occupied the same chair, and there is no indication that these pleasant relations on the part of any of us will ever be "strained."

We may add in reference to the above interesting comment, that although we had never met Bro. E. R. Root before the day we both occupied one chair at the same time, we at once felt that we were well acquainted with him, and that we indeed would be the best of *brothers*.

We were very sorry not to have had a chance for a longer visit with Bro. E. R., for we feel that our interests are, in a great measure, almost identically the same, and hence wished to become still better acquainted with him. We had met Bros. Hutchinson and Holtermann several times before, and felt that we knew them quite well, especially Bro. Hutchinson, with whom we roomed while attending the North American convention in Indianapolis, in 1886, and at various times since then we have been together.

Bro. Root has well said it, when speaking of the bee-editors present, in these words:

> There is no indication that these pleasant relations on the part of any of us will ever be "strained."

But if they ever do, let us hope that it won't be worse than "*strained*" honey! We'll try *our* best to "keep sweet," and no doubt the others will do so without trying.

◆

Those Michigan Experiments.—Bro. R. L. Taylor writes as follows, in reply to the editorial on page 552:

> FRIEND YORK:—Will you give me sufficient space in the "Old Reliable" to present a different aspect of some of the points you mention in your editorial entitled "Apicultural Experiments," on page 552 of last AMERICAN BEE JOURNAL ? You say: "As Mr. Taylor's work is paid for out of public money, his reports belong to the public," etc. Which would no doubt be true if it applied; but it doesn't apply to the case. I have made no report, and cannot until the end of the year, and in the ordinary course of things it would not be published then for several months.
>
> The above is not written as a hint to any one that he is not free to publish the articles referred to—quite the contrary—but only this: The editor of the *Review* employs me to write the articles, and pays me for it, so he has of course the usual right to expect credit when the articles are copied by other journals—a thing which I notice you neglect to do in the case of the last article, no doubt on account of your misconception of the case.
>
> Then you say you have published all the articles, in which statement I think you are again in error. The one in the September *Review* I think you overlooked. Of course at that time I had no knowledge of what your intentions were with regard to their publication. You do publish notices of all conventions, as well as reports of their proceedings; now suppose in speaking in the convention on some germain topic, I had said that on account of these points no live bee-keeper could afford not to take the AMERICAN BEE JOURNAL, would it have been a very heinous offense ? But you say: "It could but result in injury to our journal, and be a gross injustice to our brother editors and their papers." How could it be an injustice to other journals—practically, I mean—when it did not help yours ? I can see how it might help yours, as well as your new subscribers, without injury or injustice to any other. If you had been present, I do not think you would have discovered anything to find fault with.
>
> Say, Bro. York, what is the matter with the Chicago climate ? I have been ill for the 16 days since I reached home, and write

in bed, and the Doctor says I can't leave it for many days yet.

Very respectfully yours,
R. L. TAYLOR.

Lapeer, Mich., Nov. 4, 1893.

Well, Bro. Taylor, you've almost got us on our saying that we had published all your reports, but you see we said "We *believe* that we have published every report," etc. Of course, you now have shown that we were in error about that, and we want to thank you for it. You will find the missing report on page 632 of this number of the BEE JOURNAL.

You say that the *Review* employs you to write your reports, and pays you for it. May we ask how it comes that you can sell those reports to any one, when the State pays you for them and your other work in connection with the experiment apiary? We think that those reports belong to the State (the public), as you are now a salaried public officer. May be we are wrong about it, but we don't believe you have any authority to sell the results of the experiments that you are employed to make for the benefit of the State, any more than did Mr. Larrabee when he was conducting experiments at the Michigan Agricultural College a year or two ago.

No, Bro. Taylor, we don't want anybody to attempt to boom the BEE JOURNAL publicly at a convention, no matter what may be its meritorious characteristics. We don't consider that it would be fair to the other bee-papers, and if we can't succeed *fairly* in publishing the BEE JOURNAL, we believe we oughtn't to succeed at all. Again, we don't see how it would help the BEE JOURNAL any to be thus advertised among perhaps the ardent friends of the other bee-papers. We believe they, too, would think it unfair. Of course, this may be another "misconception" on our part, but that's just the way *we* look at it.

Say, Bro. Taylor, the "Chicago climate" was all right before the convention, and is yet for aught we know. We think perhaps one of the causes of your illness must have been the result of that big effort yourself and others made to "tangle up" Pres. Miller on the question of grading honey. It's a wonder the Doctor hasn't been sick.

But, all jocularity aside, we were sorry to learn of Bro. Taylor's sickness, and hope that long before this is read he will be quite himself again—and ready to go on with those interesting apiarian experiments.

Marketing the Honey Crop.—Last week we promised to give something more about selling honey, and will now attempt to describe the way in which the bee-keeper we referred to on page 584 managed to dispose of his crop of some 1,700 pounds of nearly all extracted honey, for about $400. Before giving his method, let us say right here that we believe in commission men to a certain extent—that is, to handle such part of a whole crop that the producer is not able to market himself. But they are in no danger of soon finding their occupation gone, especially as bee-keepers are slow to adopt the method employed by the bee-keeper mentioned above,

Now for the plan: Bro. Melbee, as we shall call him for convenience, lives less than 200 miles from Chicago, in a small town. He of course does his own selling, and so far in an extensive experience covering nearly 20 years, he has not sold a pound of honey for less than 24 cents. He puts it only into 5-pound tin pails, and sells that amount for $1.20, besides 10 cents additional for the pail, for which he always pays the buyer 10 cents if it is returned.

Mr. Melbee keeps his honey until the fall and winter, and then does his own canvassing for orders. He works at it only four hours each week-day—from 8 a.m. to 12 m., seldom ever in the afternoon. He aims to reach the housekeeper in her kitchen, and if possible, in case of children in the family, he sees that they get a liberal taste of honey, when he is sure to make a sale. Nearly all children like honey, you know.

He generally leaves a small sample, but if an order is given at once, he agrees to deliver it within the following week. Of course all are anxiously waiting for the honey when it comes, and it is then eaten with a relish.

Mr. M. gives each family to understand that 10 pounds is the limit that he can supply them, in any one year, hence they do not get sick of it as they might were they to purchase 50 pounds all at one time. He has now nearly 1,000 families that he is annually supplying in his own and neighboring towns, and finds that he must purchase honey in order to meet the wants of his customers, his own crop being far too small.

Some customers Mr. Melbee has supplied for over 18 years, at one time getting $1.60 for a 5-pound pail of honey, and never less than $1.20. He says that now he has reached the bottom price. He considers 10 orders for 5-pound pails of honey an average forenoon's work. He last year had an assistant whom he paid 10 cents a pound as a commission for selling, and the assistant made $900 out of the job.

Now, why cannot almost any bee-keeper do as Mr. M. has done? 'Tis said that "what man has done, man can do." You may not be able to secure 24 cents a pound for your extracted honey, but there would be no trouble in getting at least 15 cents per pound, and often 18 cents.

Think about these things, friends, and see whether you cannot realize more money from your honey crop hereafter.

General Questions.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—Ed.

Winter and Spring Management.

1. I am a beginner, and have 8 colonies of Italian bees. They are very well supplied with honey, and I have fed them about 125 pounds of granulated sugar syrup. Now I want to winter them on the summer stands—how shall I prepare them for winter here in the northern part of West Virginia?

2. Will a queen rear worker-bees in drone-comb, provided there is no worker-comb in the hive?

3. How ought I to feed, and what kind of food should I give the bees to induce them to increase fast in the early spring?
Wm. N. Harter.

St. Leo, W. Va., Oct. 30, 1893.

Answers.—1. If any bee-keeper living near you has been successful in wintering bees, it would be well for you to acquaint yourself with his method and follow his example. We should hardly suppose, however, that much preparation would now be necessary, if your colonies are strong in bees, and well stocked with winter stores. They should be protected in some way from the full force of winter winds unless so situated as to need no such protection. As to what further is needed, something depends upon the kind of hive you use. If possible, it would be a good plan to have beneath the combs an air-space of two inches or more. Then there will be no danger that dead bees will clog the entrance, and this space seems to have good effect.

Perhaps the most important part of the hive for you to protect is the top. If it is so arranged that there is a space inside the cover to be filled with chaff or something of the kind, well and good. If there is merely a board cover over the brood-nest, then you will do will to have some covering over that. It doesn't matter so much what it is, so that it keeps the top of the hive warm and dry. The idea is to keep the top so warm that the moisture from the bees will not condense in drops over the brood-nest and drip down on the bees. If there is no provision for the air to find a slow escape upward, see to it that the bees have a large entrance, and in no case should the entrance be too much contracted. But, as said in the first place, you will do well to find out how others have achieved success in your locality.

2. She will, if she rears any. If the bees have room to build worker-comb, supposing a full colony is present, they will promptly do so if it is in the working season, and she will then have a chance to lay. If, on the other hand, she is put into a hive already entirely filled with drone-comb, she may lay worker-eggs in the drone-cells, the workers perhaps contracting with wax the mouths of the cells, or she may refuse to commence business under such circumstances, and the bees may swarm out.

3. If they have plenty of honey in the hive, it is likely they will do their best without any assistance from you. If they are not well supplied with stores, furnish them a supply of honey if you have it, or give them sugar syrup. The latter is not so good to induce laying, as it lacks the floating pollen that is in the honey. If there is not a sufficient amount of natural pollen for them to gather, give them a substitute. This may be weat, rye, oat or corn meal. Almost any kind of ground feed that is fed to cattle or horses will do, and the coarse parts left by the bees will be still good to feed to the larger stock.

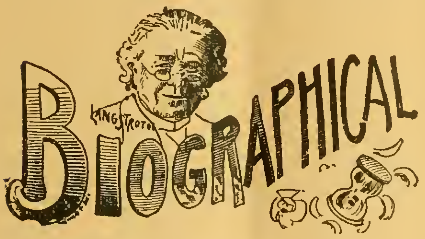
Prevention of Honey-Granulation.

We have a quantity of honey put in this market almost every year in quart fruit-cans, that will stand all winter without getting solid or candied. I think it is claimed that it is put up hot, and kept tight from air. Will this prevent honey from thickening when exposed to the cold? If so, to what degree must it be heated when put up?
Inquirer.

Answer.—Yes, if you heat honey to the boiling point and then seal it up, the same as canned fruit, it will not granulate. But the boiling utterly ruins the flavor. We can give you no better information than that contained in Root's "A B C of Bee-Culture," Mr. Root says:

"By following out the plan of the bees, we can keep honey in a clear, limpid, liquid state, the year round. The readiest means of doing this is to seal it up in ordinary self-sealing fruit-jars, precisely as we do fruit. We should fill the jar full, and have the contents heated to about 130°, Fahr., when the cover is screwed on. To avoid heating the honey too hot, it may be best to set the fruit-jars in a pan of hot water, raising them up a little from the bottom by a thin board. If the honey is over-heated, just the least trifle, it injures its transparency, and also injures its color; in fact, it seems almost impossible to heat some kinds of honey at all, without giving it a darker shade."

In this connection it may be well to mention that thick, well-ripened honey will not granulate so readily as that which is thin, and that cold seems to be a main element in granulation. If honey never gets below 75°, it may never granulate. There have been reports of honey that would not granulate when exposed to a freezing temperature, simply because it had been so thoroughly evaporated or ripened.



No. 56.—Foster A. Lockhart.

Among the many younger members of the bee-fraternity is Mr. F. A. Lockhart, whose picture and biographical sketch we have the opportunity of placing before our readers this week. If we mistake not, Mr. L. is the youngest bee-keeper that we have shown in this department this year. That fact may make it quite as interesting as if it were otherwise, especially to those who take an interest in young bachelors—for it is a fact that Mr. Lockhart has not as yet (so far as we have been able to learn), found that "queen of all queens"—Heaven's best blessing—*a wife.* No doubt he will attend to this very important matter "in due season."

The name—F. A. Lockhart—to us is quite familiar, indeed, though we never had the pleasure of meeting its owner. That we all may learn something more of our young bee-friend, we here give a short account of his life, written by one who evidently is well acquainted with his subject:

A very beautiful lake rests among the bold mountains of northern New York, and at this lake a very active bee-keeper resides. It is needless to say that the beautiful lake is Lake George, and the active bee-keeper, F. A. Lockhart.

The subject of this sketch was born at Lake George, Warren county, N. Y., on July 23, 1866, and was the oldest of four children—all boys. His father came to this country from Scotland in 1840, and settled at the lake.

F. A. LOCKHART.

Young Lockhart was brought up on his father's farm, and at a very early age exhibited a great liking for bees and bee-keeping. His first swarm was secured while returning from a cornfield. He perceived the bees passing over, and succeeded in making them alight by the use of a pan and stick, accompanied by charges of dirt and gravel. The bees no doubt were surprised at such treatment, and probably made him aware of the fact. They were hived in a soap-box, which was henceforth their home. When winter came they were covered generously with straw, and when spring appeared the novice found them smothered—killed by too much consideration.

The following year, while going to church, he secured a large swarm which was the foundation of his present apiary.

"F. A." began the bee-business in earnest in 1884. He was always hunting bees, and as a consequence he had many curious experiences. Two years after this he followed a swarm to the lake with an old piece of stove-pipe full of stones. Across the shallow water he went, shaking the rattle like a good fellow, while a companion followed brandishing an axe. An artist stood on the shore surveying the scene in blank amazement, thinking, no doubt, that some evil genii had been let loose.

In 1888 he entered as junior partner in the firm of Andrews & Lockhart, and remained two years. The year 1890 saw him starting for himself, with his brothers, etc., who form the firm of F. A. Lockhart & Company. He was then situated in Washington county, but moved his apiary to the lake in 1890. (He had always had an apiary at the lake.)

In 1890 quite a number of prominent bee-keepers, including Mr. E. R. Root, "Rambler," the Larrabee brothers, and others, spent a week at the lake. That week has been graphically described by the "Rambler" in *Gleanings*.

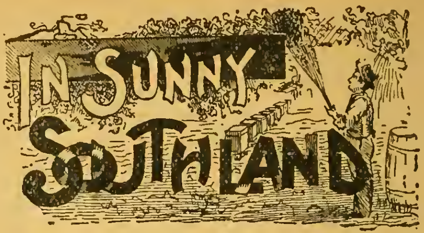
Mr. Lockhart's present apiary could not be in a more beautiful place. It is located near the head of the lake on the slope of a large mountain, many hundred feet above the water. The hives are arranged in double rows about ten feet apart on the south side of a spacious honey-house. He keeps from 150 to 200 colonies.

On the opposite side of the lake is the Italian apiary. This is fully four miles from the Carniolan yard, and with two miles of lake between, it is very favorable for breeding purposes. Friend L. is very fond of Carniolans, and is just the opposite in regard to Punics. Many queens are imported yearly from Austria and Italy, so that his apiary is always stocked with the finest to be had.

The cellar method of wintering is preferred in this part of the country.

Friend Lockhart has ranked prominently among bee-keepers, and has probably been remembered by all who have met him at conventions, etc. He is unmarried, and perhaps is following the example of some other bee-keepers. Plenty of time yet, though.

W. K. F.



CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Painted or Unpainted Hives.

MRS. ATCHLEY:—Please tell us through the "old reliable" AMERICAN BEE JOURNAL which is the better, painted or unpainted hives. L. COWELL.

Ft. Worth, Tex.

Friend Cowell, I am decidedly in favor of painting hives in this latitude, as the sun shines so very hot that a well-painted hive is somewhat protected from the sun's rays, especially if we use *good* white paint. You can very soon test this matter. You can take an unpainted board, and one painted white; lay them down side by side in the sun, and you will soon find that the unpainted board is hot, while the painted one is cooler. I know that a great many of our best bee-keepers do not paint their hives, but I think it a great help in warm countries to paint hives well. What do you say, friends? JENNIE ATCHLEY.

Drones from an Unmated Queen.

MRS. ATCHLEY:—A friend of mine has sent me a very nice Italian queen—she is a beauty in color, and the largest queen I have ever seen, but does not lay any worker eggs, only drones. I think that this queen has not been mated. I have written to my friend, and he says that the queen is this year's rearing, and had been laying worker-eggs, but he thinks that the queen he intended to send probably got killed, and the bees reared another, and he sent her to me before she was mated. Now, since this queen is from selected imported stock, and produces such nice drones, I would kindly ask you whether the drones from this queen will be as good as from a mated queen for breeding purposes. Please let me know, as I have never used drones from a queen that was not mated, but if those drones are good for breeding purposes, I would keep this queen to rear my early drones.

Lake City, Minn. N. J. THILL.

Friend Thill, I am not able to answer your question to the point, but some people think that one drone is as good as another for mating purposes. I am not satisfied about it, and I shall take steps next season to test this question, and think I will be able to answer positively with a "yes" or "no." Who knows more about this question?

JENNIE ATCHLEY.

Transferring Bees in Louisiana.

On Oct. 12th we purchased from an old farmer in this neighborhood 31 colonies of black bees, 12 miles from our apiary. On the same morning, rising at 4 a.m., and taking our rigging, consisting of one box 30 inches long, 12 inches in width each side, a block to fit the inside of the box, a piece of timber 6x6 the length of the box to push or press the honey and old comb out, with a pole 16 feet long used for a lever: a stand 4 feet long by 3 feet wide for the box to rest on, and 23 hives, containing 8 frames each of sealed honey; and smokers and tent. We left for the old farmer's country home, arriving there at 8 a.m.

We unloaded our wagon and prepared for war—and war it was, as black bees of the Mississippi valley are fighters, but we came out victorious with flying colors.

After getting everything ready, all our rigging in place, we approached hive No. 1. Puffing in a lot of smoke from a Bingham smoker, we waited until the blacks could fill with honey, then opened the top and blew in some smoke to start them down. We then lifted the old gum to one side, and in its place put a dovetailed non-swarming hive filled with 7 combs of sealed honey; on this we placed the cover with a hole 12 inches square in it, then lifted the old gum and placed it over the hole. Then began the driving process. In ten minutes we had the bees in the non-swarming hive.

Taking off the old gum we placed on the cover, picked up the old gum, and took it to our tent, knocked it open, and selected a piece of brood-comb, and inserted it with wire clamps in a self-spacing frame. We placed this in the new hive. The honey and old comb was put into a barrel.

It took us ten hours to transfer 31 colonies of bees, and we finished as the sun went down in the west. Now, after a rest of two hours, during which time we ate supper, we again returned to work.

Placing the press in position, we soon were at work, and in just four hours more all the honey was separated from the old comb, making two barrels. From the combs we got 140 pounds of wax.

Having completed our job, we loaded the wagon and started for the city, 12 miles away. We got home at 1 a.m.

The bees cost us $31, the expenses were $5, making $36. For the honey we got 50 cents per gallon, thus making $50, and the wax sold at 22 cents per pound, or $33; total, $83. Less cost of bees, $31; expenses, $5; and hives and combs, etc., $45; total, $81.

You see we got the bees free. Now if this had been in June, why, we would have had no honey to put in the hives, as the starters would have been sufficient, or old empty combs, and the gain would have been more. It pays to buy old gums and transfer the bees in June, as you reap a profit from the bees, enough to pay for all the trouble and expense. This is the best way for beginners to commence bee-keeping.

At this writing our bees are still working lively on the golden-rod.

RANGER.

Donaldsonville, La., Oct. 22, 1893.

QUERIES AND REPLIES

How to Best Employ Leisure Time in Winter.

Query 897.—How and in just what manner can an industrious bee-keeper best employ his leisure hours in the winter months?—N.Y.

By studying in the books.—DADANT & SON.

Making everything needed for the summer campaign.—P. H. ELWOOD.

That depends entirely upon his inclinations and opportunities.—MRS. J. N. HEATER.

Getting ready for next season, and posting up by reading bee-literature.—G. M. DOOLITTLE.

If they are really *leisure* hours, probably in reading some useful and instructive books.—MRS. L. HARRISON.

Lay plans for the season as you read bee-lore, and prepare for the sweets on Eternity's shore.—J. M. HAMBAUGH.

That depends upon his early training, the bent of his mind, and his capacity to assimilate what he reads.—EMERSON T. ABBOTT.

That depends altogether upon what he has capacity to do, and upon what he can get to do. In these times—well.—M. MAHIN,

In getting ready for the honey season. When he gets everything in readiness, he might invent a non-swarmer. —EUGENE SECOR.

By looking after the widows and orphans and the poor. But we do not have those leisure hours down here.—MRS. JENNIE ATCHLEY.

Why not spend his time selling his honey, and thus getting a high price, and educating the public? It will pay, as I know by experience.—A. J. COOK.

If you are an industrious man, and can find nothing to do, stay at home and help the good wife; but if you have none, get one, by all means.—H. D. CUTTING.

That depends upon the locality—and —and—and the bee-keeper. If he has plenty of money, let him see how much good he can do the worthy, needy ones. —A. B. MASON.

This same question is now occupying the minds of thousands of bee-keepers all over the country, and each one has to solve it to suit his environments and capacity.—J. P. H. BROWN.

All depends upon what there is to do, and where you live. Study up on bees. Get all supplies ready for the next season's work, then take the best paying job you can get.—E. FRANCE.

By reading Plato in the original Greek, if he has a turn that way, or by studying some branch of history, or science, etc. He should not allow himself to grow one-sided.—R. L. TAYLOR.

I always find plenty to employ my mind and body. You must be your own judge. No one can suggest the best course for you without knowing your capacity, fitness, inclinations, etc. Every person ought to know best what his true calling is.—G. W. DEMAREE.

First, in getting everything ready, and in forming plans for the coming season. Second, in reading up and getting thoroughly posted in all the latest improvements in the business.—C. H. DIBBERN.

That depends altogether upon what he can do. It will not do to say he can work at blacksmithing, for all are not blacksmiths. If you mean to improve himself, let him get all the books and bee-journals, and do a lot of thinking.—C. C. MILLER.

Principally in getting ready for next season. I don't know of anything better than poultry-keeping; in the summer they will take care of themselves, and in the winter a little extra care and attention make them a source of considerable profit.—WILL M. BARNUM.

This is a question, like marriage, that each one must settle for himself. I could name poultry, sheep feeding and fattening, carpentry, school teaching, printing, peddling, or any one of the thousands of occupations to which the person is adapted.—J. H. LARRABEE.

In that employment that shall prove most profitable, all things considered. What this may be, depends upon the bee-keeper and his surrounding circumstances. It may be in disposing of his crop, and preparing for the coming season; or it may be any one of a hundred other occupations.—JAMES A. GREEN.

In studying the science from the best text-books and bee-journals; in preparing his hives, sections, etc., for the coming season, and in writing up his ideas for the bee-journals, and thus giving his brethren the benefit of his experience. Generally speaking, by doing all he can to perfect himself, and aid bee-keepers generally, in the science.—J. E. POND.

Not knowing your conditions or surroundings, it would be hard to prescribe for you. You don't say whether married or single, or if you wish to improve your mind, or advance your pecuniary interests. You will have to be governed by your ability and opportunity, as you know better than the rest of us in what direction you wish to advance. Calculation and persistence effect wonders, in time.—S. I. FREEBORN.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

Convention Proceedings

Report of the North American Bee-Keepers' Convention.

Reported for the "American Bee Journal"
BY R. F. HOLTERMANN.

(Continued from page 596.)

The question-box was then examined, and the first question propounded was about the

Size of Hive for Comb Honey.

It was asked whether a hive with the capacity of an eight or a ten frame Langstroth hive was preferred for comb honey production.

Allen Pringle—I reduce the capacity of my hive by means of dummies when the time comes for the honey-flow. If a 10 frame is a large hive, an 8-frame can hardly be considered a small one, and I reduce to less than 8 frames.

A lengthy discussion followed upon the question as to what would be the best hive for comb honey, some favoring a size equal to an 8-frame Langstroth, and some a 10-frame. Others preferred designs not generally known, amongst them being B. Taylor.

R. L. Taylor favored the New Heddon hive.

The question was then asked whether the 10-frame Langstroth hive is better than a shallower one for comb honey. The majority favored a smaller one.

Those preferring a 10-frame hive to an 8-frame Langstroth for comb honey, were asked to rise, and 16 responded.

Those preferring an 8-frame to the 10-frame were asked to rise, and 42 responded.

One member had changed from an 8-frame to a 10-frame hive; and 24 had changed from the 10-frame to the 8-frame hive.

Twenty-eight members had a hive that would alternate with a capacity of 5, 10 or more Langstroth frames.

J. A. Green thought that the capacity of the average queen was beyond the 10-frame Langstroth hive.

Queen Crowded for Room.

Mr. Blanchard asked if a good bee-keeper would allow a queen to be crowded for room when the bees might be useful for honey-gathering.

R. L. Taylor—The question involved is what she can do in time for the honey-flow. Locality may make a very great difference. This must be considered. In my locality one must be careful not to give too much room for the production of comb honey. If they have not wintered very well, I should not give the bees more than one Heddon hive-body, which has a capacity equal to 5 Langstroth frames; to this I would add supers. In other words, if they fill to the capacity of 5 Langstroth frames by June 1st, I would give another; if not until June 15th, I would not give much additional space.

J. A. Green—I would sooner restrict 20 per cent. of my bees for comb than give 75 to 80 per cent. too much room.

Dr. Mason—Mr. Taylor is undoubtedly right, that the locality makes very much difference.

J. M. Hambaugh—I want all the bees I can get for the fall crop, so I want a large brood-chamber.

At this point in the proceedings a short recess was taken, after which President Miller read in a very entertaining manner an amusing story about the boy who couldn't tell a lie.

Hon. Eugene Secor, Allen Pringle, and C. P. Dadant were then appointed a committee on exhibits; and Dr. Mason, George W. York and O. L. Hershiser were appointed a committee on resolutions.

Foundation for Comb Honey.

R. L. Taylor stated that for the purpose of making tests of different makes, weights, and ages of section foundation, he had selected eight of these sorts of foundation, partly light, partly heavy, and one sample two or three years of age. After this foundation was fastened in sections, he put them in cases without separators, alternating them so that in each pair of cases each sort appeared seven times. From one case he took one section of honey made from each sort of foundation, and shaved off the honey so as to leave the septum by itself as complete as possible. These septums he had brought with him, and he desired the committee, if they saw fit, to examine these septums for the purpose of having them determine the comparative thickness of the septum of each sort; the object being to determine if one was more desirable than another.

Father Langstroth Remembered.

A letter was then read from Rev. L. L. Langstroth, by Thomas G. Newman. In this letter Father Langstroth stated that financial difficulties were pressing upon him, freedom from which would probably greatly relieve his physical trouble. He hoped we would have a pleasant convention.

Mr. Newman, in an eloquent and sympathetic address, said that Father Langstroth's name stood pre-eminently above any other name in the world of bee-keepers. He thought when bee-keepers considered what they owed Father Lanestroth, many would come forward and contribute to a fund to assist him in his need.

A collection was then taken, and a nice purse of $50 made up.

It was suggested that any one not prepared to contribute then, or any not present, could send their contributions to George W. York, editor of the AMERICAN BEE JOURNAL, who would acknowledge it in the "Langstroth Fund," that was being raised by the BEE JOURNAL.

The Syrian Bees.

The question-box was then taken up, and the following question asked:

"Have the Syrian bees any points of superiority over other races?"

R. L. Taylor—*The hinder point.* They are intensely nervous, and must be handled carefully.

Prof. A. J. Cook—I think they have been misunderstood. One must know how to manage them.

R. L. Taylor—I have the same bees that came from the College, and I find them more irritable than my hybrids.

E. T. Abbott—They work well when let alone, but in order to handle them I need all the smokers on the place, rubber gloves and rubber overcoat, and they will even chase me down cellar, and then sit on the outside and wait for me to come out.

J. C. Stewart—I have seen honey produced by these bees, and it has a watery look—something as honey would look if kerosene oil had been poured over it.

Frank Benton—I had the bees in their purity in Beyrout. They have some superior qualities, but are not as good as Cyprians; compared with them they have no superior qualities. They sting badly, and their method of capping honey is not superior. They should be smoked sparingly. Their temperament varies. On an average, they are worse than Italians. With careful selection, they might be bred in the direction of a gentler disposition. They are very prolific; this trait can be regulated. I do not think that a pure Syrian queen-bee could be found on the continent of America to-day.

Distinguishing Carniolan Bees.

"How can Carniolans be distinguished from the ordinary black bees?"

Mr. Benton said that the Carniolans are slightly larger; silvery grey light bands give them a ringed appearance. As to action, they do not run off and drop from the combs. If a veil had to be used in handling them, except in exceptional instances, he would not believe them pure. They are generally gentler than Italians, produce beautiful white cappings, and are very quiet in winter.

Mating Bees in Confinement.

"Has the mating of queens with selected drones in confinement been successfully practiced?" was asked.

Dr. Miller thought not.

Dr. C. V. Riley—I have been deeply interested in this question. I have not yet given up hope that we may be able to solve this problem to our satisfaction, and I think that before long the Department of Agriculture will take this question in hand.

Dr. Miller—I am sure I voice the feelings of the convention when I say we are pleased that in spite of hope against hope, Dr. Riley feels that something may yet be done in this matter of mating queens in confinement.

Prevention of Swelling from Stings.

"Is there any prevention of severe swelling from bee-stings?" was asked.

Dr. Miller—The best cure is to go on getting stung.

Mrs. Benton—I think that Cuticura is a good remedy.

J. E. Armstrong—I strongly heat the part stung. Put the hand in water as hot as can be borne for ten minutes, or bathe the face with hot water. No swelling occurs. I have tried it often.

Apiary Work and Kind of Frames.

"Who knows anything about injury to back by constant work in the apiary?" Many replied, "*I do.*"

"How many prefer loose hanging frames?" was asked, and 49 responded.

"How many have used other than

hanging frames?" Twenty-nine responded.

"How many have used partly closed-end frames?" Nine responded.

Some one asked whether Mr. R. L. Taylor advise that a change be made to closed-end frames?

Mr. Taylor—Yes; as soon as I could conveniently do so.

"How many prefer the New Heddon hive?" Eight responded.

The convention then adjourned until 7:30 p.m.

FIRST DAY—Evening Session.

After calling to order, the place of holding the next meeting was the first subject taken up, and St. Joseph, Mo., was selected.

The following officers for the ensuing year were then elected:

President—Rev. E. T. Abbott, St. Joseph, Mo.

Vice-President—O. L. Hershiser, Buffalo, N. Y.

Secretary—Frank Benton, Washington, D. C.

Treasurer—George W. York, Chicago, Ills.

Improving the North American.

The Secretary, Mr. Frank Benton, then took in hand the topic, "How can the usefulness of the North American Bee-Keepers' Association be improved?"

Mr. Benton lamented that the Association was not representative, but largely local. Each State Association ought to be affiliated with the North American and send delegates. The first step would be to foster State Associations. He stated how foreign associations were managed, told what large numbers were in attendance, and explained an elaborate system by which he hoped that by having exhibitions of honey in connection with the meetings, and charging a small fee for admitting the public, also by charging a small annual fee for each member of all the affiliated societies, money might be secured for the sending of delegates.

Dr. Miller thought the United States was behind every other country in the matter of bee-keepers' societies. He requested Mr. Benton to explain how foreign societies were conducted, at which there was such a large attendance of bee-keepers.

Mr. Benton said there were about 400 at the Frankfort meeting in Germany. In connection with the convention the society had an exhibition of honey, implements of all kinds, fruit preserved in honey, etc. The society included Austria and Germany. The society received several hundred marks from the Prussian government each year. Mr. Benton showed a beautiful medal which he had received at one of these exhibitions, for honey, which he had on display.

Prof. Cook thought the plan would not work here, because the population was not dense enough. Traveling expenses were too high; but he thought the association had excellent conventions, and there was no reason for feeling discouraged. The bee-papers gave the reports, and were the better for it.

C. P. Dadant agreed with Prof. Cook. Our country is too thinly settled. Mr. Dadant had tried very hard to make the affiliation scheme work when he was Secretary, and one society had not even called for its medals.

Mr. R. F. Holtermann thought the idea a good one, to allow those who were members, but not present, to vote. It would create greater interest.

R. L. Taylor agreed with Prof. Cook. In the old country those going had other objects in view. He thought there were insurmountable difficulties in connection with allowing those absent to vote.

The convention then adjourned until 9 a.m. the next day.

SECOND DAY—Morning Session.

The convention was called to order by the President, and Mr. R. F. Holtermann, of Brantford, Ont., editor of the *Canadian Bee Journal*, read the following essay, entitled,

The Production of Comb Honey.

The production of a first-class article of comb honey becomes a subject of greater importance from year to year. The demand for comb honey is increasing, and those producing the article in the best condition will secure the best prices and readiest sales. There is no use in treating the subject except in detail. There are a number of points to be considered.

First of all, is the man fitted? No man who is not thorough in his work, neat, intelligent, paying attention to detail, can succeed to the fullest extent. It is then a subject worthy of the attention of a man or woman of first-class ability.

The locality must be considered. One in a locality generally poor cannot expect to compete in the production of comb honey with a bee-keeper in a good locality; by that I mean, heavy honey-flows are required rather than prolonged ones. The greater number of pounds of honey gathered in the least time, the better for the production of comb honey. Upon this we are all agreed.

THE HIVE REQUIRED.

Upon this subject I hardly consider it wise to more than touch. There is such a diversity of opinion, that every one must judge for himself, according to conditions. At the same time, I cannot treat the subject honestly and conscientiously without stating that I consider any material variation from the depth of the Langstroth frame a mistake.

THE SUPER CONSIDERED.

There is perhaps no super that will give us all advantages and no disadvantages. We must then select the one which has the greatest number of advantages, and the least number of disadvantages. I should like a super that would protect the four sides of the sections, also its edges, as far as possible; but when we consider the difficulty—in fact, impossibility of getting at sections, the conclusion is forced upon us, that something else must be looked for. The section supers with a section-holder consisting of two sides and a bottom-bar, with separators, follower and wedge, is probably the super we are looking for, as it is not covered by a patent, and every one is at liberty to make and use it. The sections are protected as far as convenience in handling permits.

THE SIZE OF SECTION.

The size of section must be the next consideration. In this we must keep in view convenience, demands of the market, and what the supply dealer makes; when we do this, but few will fail to take the 4¼x4¼ section. To decide upon the width is a more difficult matter. In Canada 95 out of every 100 use the 1⅝ section; a few use 7-to-the-foot; the balance, 1⅜, 1¾, 1½, 1⅞, and 2 inches. The demand is for the narrower section—1⅝ or 7-to-the-foot. In the United States I believe I am safe in saying the demand is increasing for a narrower section—something more in the direction of what Canadians are using, and that demand will be met.

THE KIND OF BEES.

Next comes the bees. Upon this it is my intention here to touch very briefly, as the subject comes up under "General Management." Just let me say that, beauty of comb produced, honey-gathering qualities, and the like, must be looked to rather than the beauty of the bee. I believe many of our queen-breeders are bowing too much to popular opinion in the breeding of queens. They know that a beautiful queen and beautiful bees will please as soon as the eyes rest upon them. We are apt to be carried away with them the moment we open the cage, while it takes time to manifest other and more practical characteristics.

THE PROPER MANAGEMENT.

And now comes management. The bees should have plenty of stores in the fall of the year, they must be wintered well, and every hive should have plenty of stores, so that the bees in the spring need never curtail brood-rearing on account of shortage of stores. All that applies to the building up of colonies in the spring applies to the successful production of comb honey.

I take issue with the statement that the bees can get strong too early. Such a condition never was, and never will be; the opposite, too weak colonies at the honey-flow, alas, is too nearly the rule, and reduces the number of pounds of honey secured per colony.

If a colony gets crowded in the lower story, and the time has not arrived when sections should be put on, I place on an extracting super with a queen-excluder, or without, as I see fit, and at the proper time replace this with comb honey supers. With extracting supers on the hive, there is at this season practically no excuse for swarming.

All hives should be placed on secure stands, and in every case a spirit level used. There is no serious objection to the hives leaning forward a trifle, sufficient to shed rain, but sidewise. They must be perfectly level. The greatest cleanliness should be observed, bottom-boards, hives and top-bars scraped, and only such old colonies as have bright, clean combs run for comb honey.

Full sheets of foundation should be used in the sections, and the foundation as light as possible, and of the best wax. I prefer wax made from cappings, and taken by the solar wax-extractor for this purpose, but in this matter the supply dealer is at the mercy of the bee-keeper, and it rests with the latter what kind of wax shall be used.

When I make the statement that light foundation should be used, I am at variance with some leading comb honey men; but while it is a fact that the bees will thin down the foundation, there are seasons and times when they will not do this, and against this we must guard in order to avoid making the article unpopular.

I use a bait (one of last year's sections) in the supers. I have also tried supers without, but can find no great difference.

Swarming is an important factor in the production of comb honey, and the longer one works for this the more confident one must feel. No one who wishes to produce comb honey to perfection, will ever care for any advice to prevent swarming entirely. No apiary should be run for comb honey alone, and in running for comb honey the only object kept in view should be the production to perfection of this article. To do this, swarming must take place. From clean parent colonies good comb honey may be secured, but rarely as good as from swarms.

When the bees swarm, they should be hived on the old stands, and either on very narrow strips of foundation, about half an inch deep, or on full sheets. Localities undoubtedly vary as to the amount of pollen deposited in the combs, and in a locality in which the bees gather an undue amount of pollen, I should say, try to make the bees draw out and fasten to frames of foundation early in the season, and hive the bees upon these combs; failing in this, use full sheets of foundation. The object of using these full sheets, or combs, is to assist in preventing pollen from being in the sections. In localities where pollen is not troublesome, the bees should be hived on starters, and after allowing one complete day to pass after the time of hiving, put the supers on the hive. I have not much faith in added energy through swarming, but the bees have at the commencement no brood to care for, and feed, and they give better results as to surplus. If sections on some old colony are about ready, it is a good plan to give these to swarms to finish; they will make very rapid work in finishing them.

Now as to the combs which will be built from the starters: We know that when a young queen is in the hive, the bees will be less inclined to build drone-comb, but is this condition practically for the comb-honey producer? I think not. The plan of re-queening with young queens before the honey-flow, is not desirable, from the loss of time resulting from the introduction of a new queen, and taking out of the old one. The truly successful comb-honey producer must be ever on the watch to improve his stock in this direction; he should know by numbers what supers have been finished by every colony, and when he notices section supers of well capped comb, and free from brace-comb and propolis (this latter characteristic should be especially observed), he should note that hive, especially if the amount of honey secured has been large. Next season he should breed from such a queen, and so on, producing from year to year a better strain of bees.

I am not saying a word against queen-breeders (I am a queen-breeder myself), but a comb-honey producer should have a strain of bees which, although they may not be the best in the world, yet must be of sufficient value to him to cause him to replace them with extreme caution, and only with something tried by himself. To prevent deterioration, some new blood must be introduced each season; it is then impractical to have young queens with swarms, and often with such queens there will be an undesirable amount of drone-comb. I have within the last two weeks seen the result of an extensive experiment conducted by Mr. S. T. Pettit, of Belmont, Ont., under the following directions:

The swarms were given one or two combs entirely drone, the balance starters, with the hope that the bees would be furnished with worker-comb, but they appear to have no powers of reason, and in every instance appear to build as much drone-comb as if the first combs had never been given.

For extracted honey I favor full sheets of foundation, every time, but for comb honey my arguments for starters, unless in exceptional cases, are these: We are trying to get the most honey out of these bees, and we want the best product; if we do not care for much increase, we can shake the bees from these combs after the season is over and destroy them; if we wish to winter them we can put them on good combs, and feed them sugar syrup for winter stores. The combs built by the bees can be patched up to the best advantage, and the old hive placed directly behind. The new colony can be treated thus:

Almost six days after swarming, shake a good many bees from the combs, adding them to the new swarms in front, and either utilize the combs in another place, or put the colonies on new stands, and let them build up for winter. I am never troubled with second swarms.

The location of an apiary has much to do with swarming. In places where the air can freely circulate, the amount of swarming will be reduced; the nature of the soil even will have an influence.

I like the apiary on sod, and the hives to be placed under the outer edges of the shade trees.

I never give, in the production of comb honey, an upward ventilation, and herein lies an important secret towards securing white and clean sections. The bees resent any such current of air, and when given, begin to propolize, and and soiled sections are a result. A quilt should not be used unless a heavy cushion and a heavy lid be placed above to prevent the bees from pushing the quilt off. I like a honey-board, and a quarter inch bee-space above the combs. Shade-boards are used on top, and even at the sides of hives; they are a great advantage.

It is unnecessary to say that no one can engage in the successful production of comb honey with one super only, and yet there are many who think such is a practical economy. Before the advent of the bee-escape, I drove bees out of the comb honey supers by spreading over a cloth dipped in a weak solution of carbolic acid, the cloth being wrung almost dry before spreading. This works very well, but the bee-escape is still better.

My system is to produce a certain amount of comb honey, and as the season becomes doubtful turn off to extracted honey; this prevents cull sections except in very exceptional seasons.

Nothing has been said about any kind of feeding. To feed back extracted honey means to put upon the market comb honey which will quickly granulate, and this will displease the consumer, and is therefore undesirable. To feed anything else should never for a moment be listened to—never be even thought of; to practice it would surely bring swift retribution. Only a choice article should be aimed at, even if we never exhibit, for by so doing we place ourselves to a certain extent out of reach of competition. We command the highest price and a ready sale.

R. F. HOLTERMANN.

The foregoing essay was then discussed as follows:

R. L. Taylor—Why do you favor starters for comb honey?

Mr. Holtermann—Because I look for the best results, financial. The most honey in the best shape. The starters will give me the best financial results.

R. L. Taylor—I do not think we want to use starters for comb honey. I this summer hived 4 colonies on foundation, 4 on combs, and 4 on starters; everything was weighed, bees, hives and all. The bees were hived the last week in June; the honey-flow lasted for about three weeks, and on July 19th results were taken. The swarms differed in weight, so the gain per pound was taken during that time; at the latter part of the season those on starters were gaining more than the others. As to upward ventilation, I favor such and practice it.

R. F. Holtermann—Before I say anything more, I wish it understood that I value the work of Mr. Taylor very much, and I may be mistaken about the value of starters, yet too much value cannot be attached to one experiment; but as it is repeated, and the average is taken for a series of years, does great value arise. In the first place, the results as to yield per colony differ very much in different weights of swarms. For instance, a swarm up to a certain weight is engaged in keeping up its present weight, the bees beyond that weight give the increase, hence the increase per weight of bees is, I think, hardly just. Again, we know colonies apparently alike give very different results.

Mr. Taylor—In each group there was one swarm weighing alike.

Mr. Kretchmer—The length of the honey-flow makes a great difference—if short, starters pay best; if long, the contrary.

N. D. West—I agree with the views of the last speaker. I used to favor starters. If the season is full and short, we first send the honey up into the surplus boxes. I hive swarms now on five frames. The bees must go above with the honey. I have between 400 and 500 colonies.

Mr. Stewart—If I had lots of time I would use dummies. I used to favor starters. When I put on supers I take sections off of the parent colony, whether partially worked out or not.

Mr. Holtermann—I might say that I never have any fall flow.

Mr. Abbott—I have been interested in these discussions, but I do not think it is of any use splitting hairs when estimating results. The bees themselves give very different results. Of course, no one asks bee-keepers to take the result of one experiment as final.

A number of members spoke of the value of the work done by Mr. R. L. Taylor, and a strong feeling prevailed that more should be done in this direction.

The following resolution was then presented, and passed:

Resolved, That the North American

Bee-Keepers' Association recognizes the value of experiments and experiment stations, and firmly believes that bee-keeping would be greatly aided in each State and Province, where bee-keeping is a leading or important industry, if the experiment stations in each State and Province should secure an able apiarist to give his full time and energies to the work of experimentation, and if these apiarists should work together to advance the general apiarian interests.

Therefore, we ask that the bee-keepers in all such States urge the importance of this matter before the directors of the stations, and ask such action as will secure the services of an apiarist in each station. And cease not to urge until success is secured.

A. J. Cook,
Dr. A. B. Mason, } *Com.*
Jas. A. Green.

(Continued next week.)

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Dec. 7.—Carolina, at Charlotte, N. C.
A. L. Beach, Sec., Steel Creek, N. C.

Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

Dec. 13, 14.—Eastern Iowa, at Delmar, Iowa.
Frank Coverdale, Sec., Walton, Iowa.

Dec. 19, 20.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Dec. 28, 29.—Kansas, at Ottawa, Kans.
J. R. Barnhard, Sec., Ottawa, Kans.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

Pres.—Emerson T. Abbott.....St. Joseph, Mo.
Vice-Pres.—O. L. Hershiser....Buffalo, N. Y.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

Honey as Food and Medicine is just the thing so help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the Bee Journal for description and prices.

CONTRIBUTIONS

Prevention of Second Swarms, Longevity, Etc.

Written for the American Bee Journal
BY DR. C. C. MILLER.

The plan given on page 534, by Mr. Dart, to prevent second swarms, will no doubt prove successful, but what advantage has it over the regular Heddon plan, of which he says it is a variation? One plan prevents, and so does the other; which plan is the least work? When the old hive is turned around for the second time so as to face the same way as the new one, if I may judge from past experience, a good many bees will return to it that had at the previous change gone to the new hive.

I suspect that several of those last changes may be dispensed with. After changing the old hive the third day after swarming, so as to face the same way as the new one, if he will let it stand without any change till the seventh or eighth day after swarming, and then move it to a new location, I think he will be equally free from further swarming, and have less work.

LONGEVITY OF HONEY-BEES.

On page 533, Jas. R. Bellamy strikes a very interesting topic, when he speaks of two colonies with the same amount of brood being very different as to their respective forces of bees. He says he knows more in this line than he can tell. Please make the effort, Mr. Bellamy, to tell what you know about it, for you have aroused curiosity. But are you sure you would make any gain as to longevity of workers by having queens 4 or 5 years old? It does, however, look a little reasonable that a long-lived mother might have longer-lived children.

PULLED QUEENS.

But your item headed "Pulled Queens Unsatisfactory," Mr. Bellamy, is quite unsatisfactory. You say they don't sui you, but you don't tell why. You say, "Some would be all O. K.," but you don't say about the others. Please tell us what was the matter with them.

You say, "I think that queens that are kept in their cells for some time after they would go out, have more vigor when hatched, and afterward." Please say what makes you think so. Don't you think there is some danger that "by putting wax over the point of the cell" you lessened the vigor of the queens by preventing the bees from feeding them? For you know they thrust out their tongues so the workers can feed them.

You say, "Try breaking the egg-shell to let a chicken out, and see a pulled chicken." Suppose you try fastening the chicken in its shell after it is ready to hatch. You see if your proposition proves anything against pulled queens, mine proves just as much against your plan of fastening them in. But neither of them proves anything. Bees are not chickens.

Marengo, Ill.

What Ails the Bees?—What Will Cure Them?

Written for the American Bee Journal

BY "NOVICE."

I have been a subscriber to the Bee Journal for a year, and have very much enjoyed the opportunity afforded of learning from its contributors, who have had large experience in the fascinating pursuit of apiculture. The subject of the diseases of bees is interesting to me, and is, I presume, to all who are engaged in the business. I have seen allusions to the "nameless bee-disease," and to the "bee-paralysis," and I wish to ask who has had experience with this disease, what is the trouble with my bees, and whether there is any cure.

Last year I bought from a dealer in South Carolina, a colony of Italians, and placed them on a bench under shelter, and between hives of Italians that had been bred up by introducing Italian queens purchased from dealers in other States. A month or so after their arrival, there was at least a gallon of dead bees in front of the new colony. Then the colony on each side became infected, and the bees in them began to die, and by winter all the colonies in the apiary were attacked, except two.

At times last fall the ground would be thickly strewn with dead bees, and it seemed incredible that the most marvellous rate of increase in numbers could keep pace with the death rate. However, only one colony perished, but they were all weak in the spring, and the death rate was still high until summer came, when the bees all seemed to get well except one colony. This fall that colony has been the focus of infection whence the disease has spread again, until a full fourth of my colonies have got the disease again badly.

The symptoms are as follows: First, the guards on the alighting-board will be seen surrounding a bee that perhaps looks, to the naked eye, as well as any. The guards will pull her about and appear to gnaw her, and finally try to fly off with her. Presently bees will be noted that are discolored more or less. Some will have lost the light-colored rings around the lower part of the abdomen, and show instead a solid black color. Others will turn to a bluish-black glossy hue that covers the entire body except the two upper rings. These bees will then begin to appear to be sick; they clutch hold of the alighting-board and shiver, and tremble all over. They stagger about, until they finally fall to the ground and perish.

At last bees will be noticed that show no discoloration at all, but shiver and stagger about, and suddenly fall over. Most of these are very much swelled, and their abdomens very much elongated and enlarged. Very rarely one will be seen to discharge quite a large splotch of a yellow-colored, thin feces. Multitudes appear to die suddenly while on the wing. They will be found dead on the ground all around the apiary, and even under the trees, that are in bloom. When the disease is at its worst there is often an unpleasant smell about the colonies affected.

All these symptoms were observed last fall, and it seemed that every colony but two would perish, but only one actually died. The colonies worst affected were isolated, and, after the spring opened, the malady seemed to abate gradually, until it almost entirely disappeared from all the colonies except one, which exhibited the worst symptoms continuously up to the present time. From this as a focus, the disease seems to spread on both sides, and I fear that in a short time all my colonies will again be infected.

Now and then in the healthy colonies a solitary bee will be observed with a glossy. blue-black abdomen, with only two of the yellow bands visible, and they apparently much wider than usual.

These individuals are almost always arrested by the guards, and have to go through a process of pulling and hauling about, and are frequently treated so roughly that they take wing when they manage to get loose. The guards in a diseased colony are sometimes seen gnawing at one of these bees after they are dead, though not often.

Going into the apiary in the morning I can hear the dismal sound made by the bees carrying out the dead. From the hives that are worst, as many as 25 dead bees may be seen on the bottom-board at once. As compared with the number that die abroad while on the wing, or in the fields, this is only a small percentage of the daily loss. I would be glad to know if these are the symptoms of the "bee-paralysis" or "nameless bee-disease;" and if any of the BEE JOURNAL readers know of any course of treatment that will cure the disease, I should be very grateful to have it given in the BEE JOURNAL. There are probably others in the same situation as myself, who would be glad to know of a remedy.

At the suggestion of Mr. A. I. Root, I experimented with one colony by feeding them honey diluted with salty water, but it did no good as far as I could see. Last spring a little salt was thrown on the bottom-board of each hive, but no immediate benefits followed. The improvement came with the hot weather, and with cool weather there seems to come a return of the disease.

Columbia, Miss.

[Will those who have had experience with the above described trouble, please help out Mr. "Novice," if possible.—ED.]

Extra-Light Colored Bees and Their Friends.

Written for the American Bee Journal

BY CHARLES WHITE.

It was hardly fair for Dr. Gallup (page 499) to ask the editor to hold us while the Doctor does the pounding. I would prefer it the other way, and the Doctor do the holding and the editor the pounding.

I am ready to agree with Dr. Gallup on some of his points, while I will have to ask some questions before I can agree with him on all.

The first question that I would like to ask is, Did he ever try getting five-banded bees the fifth generation after starting with a black virgin queen, having her mated to a pure Italian drone, then using one of her daughters, having her purely mated, and so on, to the fifth generation? If he did, and succeeded in getting five-banded bees, how does he know for sure that the matings were all with a pure Italian drone? In that way of breeding there could not be any in-breeding.

Now the query is in my mind whether that small amount of black blood would make the drones larger and more yellow than the pure Italian drones; if so, would not that go to prove that the black bees are of a superior race of bees, and very yellow at that?

If five-banded bees can be produced with one-fifth black blood in them, what would be the result? If we had started with a daughter of an imported Italian queen, the result would be five and six banded bees. I have tried this, but not the Doctor's plan.

I have had the best chance to experiment on that line this summer that I ever had, as the summer was very dry, so much so that a great many bees starved in June and the forepart of July, and the consequence was, there were no swarms nor any drones except where bees were fed. I fed until the middle of August, and had plenty of those fine, large yellow drones—they were beauties—of the five-banded race. I use imported queens for my breeding queens. Now the chance for pure mating for my young queens could not be better and they proved it by their progeny. A great many of them rear a fine four-banded bee, every worker-bee just alike, and the poorest of them shows a fine three-banded bee.

Other seasons I would get a queen mismated, and once in a while their progeny would be all kinds of markings, from no band to three, all from the same queen. These were daughters of imported queens.

Now for the daughters of five-banded or golden queens: I find when they appear to be mismated their progeny is generally three-banded and all evenly marked. Don't that look as if the five-banded bee was the strongest blood?

I have had queens reared early in the season, when the weather was quite cold, and the queens were nearly always dark, and sometimes black. The weather appears to have the same effect on the drones as it does on the queens. I have had some of those young queens show very dark bees—so dark that they did not show the Italian at all, only by their traits. They were kind to handle, and would stick to their combs as well as any Italian; that led me to believe it is very easy to breed the Italian coal-black and leave all their good traits with them.

The business bee is what we all want, and it is as easy to combine business and beauty as not, especially in the bee.

Aurora, Nebr.

The Pratt Hiver Tested in an Experiment Apiary.

Results of Experiments at the Michigan Apiary,

BY R. L. TAYLOR, APIARIST.

As stated in a former article, the Pratt Hiver was included in my plan for a series of experiments to be conducted during the white clover honey season. Five of them were used, the first of which was put in place June 16th on a hive which I shall call No. 1, while a swarm from it was in the air.

As the entrance to this hive was not guarded by a queen-trap, and no queen being found in front of the hive as was to be expected since I clip my queens, I put a trap to the lower entrance and caused the bees to enter through it that I might find and determine the character of the queen. The result was that I found two or three virgin queens, showing that the swarming was probably caused by the rearing of queens to supersede the old one or on account of her death. The young queens were removed and the trap left in place to enable me to determine the purpose of the next queen that should attempt to try the open air. A few days later a young queen was found in the trap, no swarm having issued. She accordingly was returned, the trap removed and the lower entrance left open for the convenience of the queen.

The history of No. 2 up to July 2nd was given in my article in the July number of the *Review*. Upon the 13th of July it swarmed again, being the fourth time, but this time I discovered the queen was a virgin, showing that the old queen had probably been killed on the return of the swarm July 2nd.

The remaining three hivers were also put in place June 17th.

No. 3 was the only other one of the five from which a swarm issued and from it, first, on the 20th of June. On the next day I found that the queen had been killed by the bees of the returned swarm, so a trap was placed at the lower entrance. After this a swarm issued on each of the following dates: June 30th and July 2nd, 4th and 8th. In the last case the swarm was hived in another hive and given the queen in the trap. In all the previous ones the swarm was returned and the queen removed.

In studying results it should be remembered that these five colonies were of more than average strength and were selected on that account because I was anxious to test the hiver by actual swarming.

If the percentage of loss of queens in these experiments is to be taken in any way as a criterion of what it would be in general practice, quite a serious difficulty is presented to the practical working of the hiver, for it would mean the ruin of all colonies that throw off swarms unless constant watchfulness is exercised, and if there must be such watchfulness there would seem to be little necessity for hivers. Though I should not expect that the percentage of loss would be generally so large, yet I fear it would be sufficiently so as to be till a serious matter.

Of perhaps even greater interest than the loss of queens is the effect of the hiver upon the amount and value of the honey produced. At the time the hivers were adjusted all the colonies in question were working in the sections except No. 1, though no great progress had been made except in case of No. 3, which had nearly filled the first super of 28 sections. This was an exceptionally strong colony and was composed of excellent workers. Judging by what other colonies did, it should have produced 75 pounds of comb honey had it been managed as the others were. In the same way the other four would have about one-half as much, or 225 pounds for the five.

The actual results so far as comb honey was concerned were all contained in three cases, none of which were very well filled, certainly not to exceed 60 pounds all told, and this was all produced by No. 3 and by Nos. 4 and 5 which did not swarm. At once on the close of the clover season the extra hives—those not containing brood—were removed and would yield about 150 pounds of extracted honey. Even the colonies that did not swarm had pretty well filled the hives below the hivers.

Of course I appreciate the unsatisfactory character of the comparative result founded as it is upon an estimate of what the colonies would have done under other cirtumstances, but with a desire to arrive at the exact truth I have judged as fairly as I am capable of doing.

Until swarming has once begun, the hiver has apparently a strong tendency to restrain the swarming fever, but when a swarm once issues, if the old queen is killed, the fever will generally persist till all the young queens but one are destroyed or otherwise disposed of.

Before a final determination as to the utility of the hiver, further tests must be made, and it is hoped that such further improvements may be made as may render the circumstances of future trials more favorable.

Lapeer, Mich., Aug. 16, 1893.

LETTER BOX
REPORTS PROSPECTS

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Getting Best Working Colonies.

The answers to Query 895 show that the question was misunderstood, unless I am greatly mistaken. The latitude (Minn.) shows that *no colony* of bees could be wintered on 5 pounds of honey. Probably the question meant two healthy colonies, one lacking the larger amount necessary to successful wintering, and the other the lesser amount on account of natural stores.

Several years ago, when interchanging frames to get my bees to rear brood in the spring (the season for flowers being late), I overdid the matter, and had to feed some colonies. May 30th found one colony starving, with plenty of brood in all stages. The feeding was continued for two or three days until they were able to take care of themselves. My record at the end of the harvest showed that this colony had been the most profitable one in the apiary.

The nearer the stores are used at the beginning of the harvest, the better; and if feeding has to be done, it is better still, is my experience. J. H. Andre.

Lockwood, N. Y.

Infidelity and "Reason" Speak.

On page 552, in referring to the death of Mrs. Chas. C. Van Deusen, the editor says among other things: "Ah, scoffers at the true Christian's faith, hide your heads in shame," etc. It seems to me that the sermon he preaches, and the point he attempts to make against infidels, are wholly out of place in a journal which "is here to furnish purely bee-literature," as he declares on the same page. But since the editor has gone out of his way to draw a moral from that horrible affair, which is wholly unwarranted by the facts, it is my purpose, in this letter which he will doubtless *not* publish in his "valuable paper," to show that the true moral is that Christians, not infidels, should hide their heads in unspeakable shame.

What are the facts? That a Christian woman was slowly roasted to death in plain view of hundreds of her fellow Christians who were driven nearly frantic by the sight of her unspeakable agony; that she prayed to her God for deliverance from her tortures. Did He heed her cry! *No.* Has He ever heeded the cries of his children in their hour of need? *No.* The long record of the horrible deaths which He has inflicted upon His "children" by fire and flood and storm, by starvation and plague, answers No, a thousand times NO. Did this poor woman's pitiful prayer drive God frantic as it did the crowd? Does this not prove that man is less cruel than God, or that God is a myth, and prayer futile?

Let us suppose that those gathered about could have saved Mrs. Van Deusen, but would not. Christians and infidels alike would have denounced them for their heartlessness. Yet, if the editor's doctrines are true, God could have saved His servant, or rendered her insensible to the flames, but calmly and coldly refused to abate one iota of her suffering. What has the editor to say of his God's criminal neglect? Will he denounce Him as he would have denounced men? *No*, but he will admonish infidels to "hide their heads in shame" when a cannibal would denounce the cruelty of his God in sending one of his children to such a doom.

The editor assumes that only an abiding faith in Christianity enables "martyrs to bear up under persecutions." He forgets that other faiths, hostile to his own, have had their martyrs who hestitated not for an instant to suffer persecution, torture, and death, rather than renounce their beliefs. I might even name infidels who have rendered their names immortal by glorious sacrifices for the cause of truth. But why waste further time? For "to agree with one who has renounced his reason, is like giving medicine to the dead." And one who can see in the case in question any moral in favor of Christianity, has most certainly renounced his reason.

Salida, Colo. R. Wheeler.

[Now, Bro. Wheeler, you didn't think we would publish your letter, did you? But really it was too good an opportunity to aid the cause of Christianity, not to publish it, so we have put it in. We don't believe there is a sincere infidel in existence to-day; and so, just to show the innate weakness of the supposed arguments of modern boasted infidelity, we have given your letter. Of course it is a waste of valuable space, except as it serves as an illustration of what some people call "reason" and "culture;" and, as you truly say, it would indeed be a "waste of time" to argue with such mistaken people, so we don't do it.

As a *final reference* to your letter, and to the subject at this time, let us tell you that the very best writers of bee-literature to-day, and those who are doing, and ever have done, the most for practical bee-culture are, almost without a single exception, *earnest* Christians, and glory in their faith. We think it isn't very commendable, even in so-called infidelity, to try to destroy the Christian's only hope, when they (the infidels) know well enough they have nothing at all to offer in its stead. Say, Bro. W., you'd better get into the "ark of safety" while God gives you opportunity. Delays are always dangerous, and it is a poor way indeed to work against God a whole life time, and then, when death comes, blame him for not giving you the same reward that one receives who has always been faithful to the teachings of His word.—ED.]

Convention Notices.

NORTH CAROLINA.—The Carolina Bee-Keepers' Association will hold its 3rd annual session at the Court House in Charlotte, N. C. on Dec. 7th, 1893, at 10 a.m.
Steel Creek, N. C. A. L. BEACH, Sec.

KANSAS.—The Kansas State Bee-Keepers' Association will meet at Ottawa, Kans., on Dec. 28th and 29th, 1893. Free entertainment to all members in attendance. Come and get acquainted. J. R. BARNHARD, Sec.
Ottawa, Kans.

IOWA.—The Eastern Iowa Bee-Keepers' Association will meet at Delmar, Iowa, on Dec. 13 and 14, 1893. All interested in bee-culture are requested to be there, and to bring with them any thing or fixture that might be of interest to bee-men.
Welton, Iowa. FRANK COVERDALE, Sec.

ILLINOIS.—The Illinois State Bee-Keepers' Association will meet at Springfield, Ill., on Dec. 12 and 13, 1893, in the Senate Judiciary room at the State House. The Illinois State Grange, the Illinois State Horticultural Society, and the various Stock Breeders' Associations meet at the same time, and in the several rooms of the State House. Railroad fare has been secured on the Certificate plan, 1⅓ rate. Those attending, to get the rate, must pay full fare going, and get a Certificate of the agent where the ticket is purchased. Rates at the hotels are secured at $1.50 per day, where two or more days' board is paid. The Horticulturists and Bee-Keepers are to make their head-quarters at the Hotel Palace. Come, everybody, and have a good time.
Bradfordton, Ills. JAS. A. STONE, Sec.

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, in Washington, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

* * *

CHICAGO, ILLS., Nov. 9, 1893.—The receipts of comb honey in October were very heavy, ranging from amber to No. 1 white comb. Very little fancy finds its way to this market, still we received some last week We have had a good fall trade with good prices. Business is slacking off some, but we anticipate good trade again just before the holidays. We predict this to be the best season ever known for this market. We are selling extracted readily at prices somewhat lower than was expected at the beginning of the season, but sales are heavier. We quote: Fancy and No. 1 comb, 15c.; No. 2 and fancy amber, 13@14c.; dark, 10@12c. Extracted, 6@7c. Beeswax, 18@22c. J. A. L.

CHICAGO, ILL., Nov. 1.—Fancy white comb honey brings 15c. per lb. Grades not grading first-class are not selling at over 14c., as there has been quite a quantity of California honey received here, and is offered at 14c. The quality is superior to most of that we receive. Dark comb honey sells slowly at 12@13c. Extracted ranges from 5@7c., according to color, quality, flavor and style of package. The trade in honey has been large this season.
Beeswax, 22c. R. A. B. & Co.

ST. PAUL, MINN., Oct. 9.—Our market for comb honey is improving, and receipts since our last report have moved off fairly well, prices unchanged. We quote best white comb honey 14@15c. for California. Extracted lower under free offerings from the coast; we quote 5½@6c. for white or amber in five-gallon tins. S. & A.

NEW YORK, N. Y., Nov, 1.—Our market on white honey is weak and shows no activity. Supply is plenty, arrivals are large, and the demand is light. Hence prices have a downward tendency and concessions have to be made to effect sales. We quote: Fancy white, 1-lbs., 14c.; 2-lbs., 12c.; fair white, 1-lbs., 12c.; 2-lbs., 11c.; buckwheat is scarce—1-lbs., 11@12c.; 2-lbs., 10c. The market is well stocked with extracted of all kinds. We quote: White clover and basswood, 6@6½c.; California, 5½@6c.; Southern, 55@65c. per gallon.
Beeswax, 24@25c. H. B. & S.

BOSTON, MASS., Oct. 9.—We quote honey as selling fairly well. Best white at 15c. Extracted, 6@7c. Beeswax, 25@28c. B. & R.

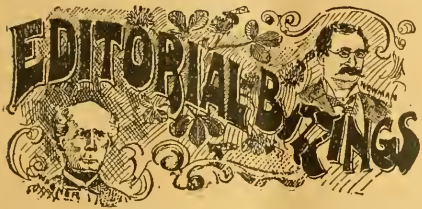
Established in 1861

THE AMERICAN BEE JOURNAL

Oldest Bee-Paper in America

GEORGE W. YORK, Editor.
Devoted Exclusively—To Bee-Culture.
Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., NOV. 23, 1893. NO. 21.



Mr. W. P. Taylor, of Fitzroy, Ont., the octogenarian township clerk and bee-keeper, was married recently. A charivari party stole his grapes, apples, and 26 boxes of honey, besides damaging his property in other ways. We learn that the crazy fools who indulged in what they called "sport" or "fun," will likely pay dearly enough for it. We hope they may be taught a good lesson. In the meantime, however, we extend our congratulations to Bro. Taylor and his new wife.

◆

Old Mr. Blobbs has been "experimenting" a little, as will be seen by a few illustrations on pages 657, 658, 659 and 660. He seems, at last, to have become somewhat discouraged in "experimental work," and has seated himself once more, apparently for meditation—and, perhaps, medication.

We believe Dr. Mason has no faith in bee-stings as a cure for rheumatism, so it is likely he will sympathize most sincerely with Mr. Blobbs. As sober (?) and long-faced (?) as Dr. Mason is well-known to be at all times, we don't believe he will keep that way during the examination of the six pictures, showing a practical experiment of interest to bee-keepers as well as those afflicted with rheumatism.

The North American's membership this year is a very large one, and yet it seems the Secretary did not get the names of all who were present. This is doubtless the fault of the persons whose names are omitted from the lists, and should not be charged to the Secretary. All should have reported their presence to the Secretary, and stated whether delegates or not. A very good sister, who was there, has just written us a letter, in which she unmercifully (?) belabors us for omitting her name from the list. The fact is, it was not our fault at all, as we simply published the list of names as prepared by the Secretary.

Now, if there are any others who were present, and their names failed to appear in the list as published week before last, will they kindly let us know about it, so that the omitted ones may be published at the end of the report. Please do this *now*, as we want to get every name in that belongs there, and the report will be ended in a very few weeks.

◆

Somnambulist, who furnishes the monthly "Wayside Fragments" for the *Progressve Bee-Keeper*, was at the North American convention last month. We didn't know it at the time, but one of his last "fragments" shows that he was there. We don't see why he didn't make himself known, unless it was that he was asleep most of the time. And yet, we didn't see anybody getting sleepy. *Somnambulist* has had so many kind things to say of the BEE JOURNAL, that really we would have been pleased to form his acquaintance. But, then, may be we do know him, but not in his "fragmentary," Somnambulistic existence.

"Observer" is another of the *Progressive's* contributors, living at "Rose Hill, Ills." Now Rose Hill is only about two miles from our residence, and the principal attraction (?) there is "Rose Hill Cemetery"—one of Chicago's most beautiful burying grounds. We had an idea it would be rather a doleful place for "observers," but the one in question seems to be as lively as the famous "Banquo's ghost," that wouldn't "down," but was always up, and, we suppose, "observing" more or less.

P. S.—"Observer" will not be charged anything for these observations.

World's Fair Apiarian Awards.—The following is a partial list of awards recommended in the apiarian department of the recent World's Fair in Chicago. Hon. Eugene Secor, of Forest City, Iowa, was the judge, and here are some winners of the coveted medals of honor, as learned here in Chicago:

NEW YORK.

Julius Hoffman—50 lbs. white clover comb honey.
F. C. Hutchins—Clover extracted honey.
Mrs. Chas. Faville—50 lbs. extracted linden honey.
C. V. Lindsey—100 lbs. comb honey.
O. L. Hershiser—Honey produced from apiary in operation at the World's Fair.
Fred H. Fargo—100 lbs. comb honey.
Julius Hoffman—Products containing honey instead of sugar.
J. E. Hetherington—Clover comb honey.
M. E. Hastings—Comb and extracted honey and bee-keepers' supplies.

OHIO.

A. I. Root—Collection of articles used by bee-keepers.
A. I. Root—Crane bee-smoker.
A. I. Root—Cowan rapid reversible extractor.
C. E. Boyer—Comb and extracted honey.
Vernon Burt—Honey.
Dr. A. B. Mason—Display of honey in jars.
Lewis Hershiser—Extracted honey.
Milo George—Beeswax.

MICHIGAN.

H. D. Cutting—Honey in glass (crop of 1893).
Byron Walker—50 lbs. extracted clover honey.
T. F. Bingham—Honey-knife.
H. D. Cutting—Honey-candy.
R. L. Taylor—100 lbs. clover comb honey.
M. H. Hunt—Comb foundation.
D. G. Edmiston—50 lbs. extracted clover honey.

ILLINOIS.

Chas. Dadant & Son—Heavy brood and surplus comb foundation.
R. & E. C. Porter—Bee-escape.
Chas. Dadant & Son—50 lbs. beeswax.
W. C. Lyman—50 lbs. extracted clover honey.

NEBRASKA.

Mrs. E. Whitcomb—Floral designs in beeswax.
Ang. C. Davidson—Linden honey, comb and extracted.
E. Whitcomb—Honey in marketable shape.
Chas. White—Combined section-press and foundation fastener.

IOWA.

E. Kretchmer—Extracted clover honey.
Oliver Foster—Extracted basswood honey.
L. G. Clute—Comb honey.
E. Kretchmer—100 lbs. alfalfa comb honey.

CALIFORNIA.

J. F. McIntyre — Extracted white sage honey (crop of 1893).

WISCONSIN.

State of Wisconsin—Honey.

NEVADA.

E. A. Moore—Extracted honey.

INDIANA.

A. G. Hill—Collective exhibit of "strained" honey.

ONTARIO, CANADA.

Allen Pringle—2,500 lbs. comb and extracted honey.
The Goold Company—20 lbs. clover comb honey.
A. E. Sherington—Linden extracted honey.
J. B. Hall—Clover comb honey.
D. Chalmers—Thistle extracted honey.
J. Newton—Clover comb honey.
Allen Pringle—Extracted and comb honey.
J. B. Aches—40 lbs. clover comb honey.
Goold, Shapley & Muir Co.—40 lbs. clover comb honey, reversible honey-extractor and brood foundation.
S. Corneil—Clover comb honey.
Geo. Wood—Linden extracted honey.
A. Pickett—Linden honey.
Geo. Harris & Son—20 lbs. clover extracted honey.
J. B. Hall—75 lbs. clover comb honey.

The above list is correct, so far as we have been able to learn. Next week we hope to be able to publish the names of foreign awards, and to make any corrections, if necessary, in the list given this week.

Bro. Hutchinson, in the last *Review*, gives very interesting descriptions of his trip to Chicago, and the honey exhibits at the World's Fair, a few of which he pictures, having photographed them himself. There is very little in the *Review* these days that could be criticised, which shows that Bro. H. is working hard to make his paper worth all it costs. But then, that wouldn't be hard to do, for where is the bee-paper published, a single issue of which is not worth a whole year's subscription? For this reason, it will pay every wide-awake bee-keeper to take several of the best bee-periodicals, and not stop with only one. Also, all the best bee-books should be found in the bee-keeper's library. These are what might be called "reading times," and bee-folks should not permit themselves to fall behind the rest of the world in being posted in their calling.

"The Honey-Bee: Its Natural History, Anatomy and Physiology," is the title of the book written by Thos. Wm. Cowan, editor of the *British Bee Journal*. It is bound in cloth, beautifully illustrated, and very interesting. Price, $1.00, postpaid; or we club it with the BEE JOURNAL one year for $1.65. We have only four of these books left.

The Mid-Winter Fair, to be held in San Francisco, Calif., beginning Jan. 1st, is being put in order as rapidly as possible. Mr. H. L. Jones, a bee-keeper there, informs us that the bee-keepers of Southern California are making arrangements to secure space in which to fittingly represent the industry. They wish to display all bee-products in glass cases, showing honey in the comb, and in all subsequent stages until it is ready for the market. They will show also several colonies of bees, and all the bee-appliances. We hope that justice may now be done the bee-industry in California, as that State was very prominent on account of its almost total absence from the apiarian department at the World's Fair in Chicago.

A Bee in the Ear is what Editor Leahy, of the *Progressive Bee-Keeper*, has been troubled with lately. It caused him about as much trouble as a "bee in the bonnet," we should imagine from reading his account of it. He says the bee "kept walking in until nothing but her hind legs could be seen"—and he "had to have her pulled out with a pair of tweezers." Just think what might have happened, had she gone in backwards — what a "random sting" Bro. Leahy might have received. It would have been far different than the BEE JOURNAL'S "Stinger" inflicts, for Bro. L. says in the same issue that The Stinger's "sting is usually very penetrating, but causes a pleasant sensation." There is nothing like "knowing how," even when it comes to "stinging."

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Feeding Bees for and During Winter.

I have 5 colonies, and 3 of them are weak, so that I will have to feed them through the whole winter, for this year there was a poor crop here, and bees gathered hardly any honey. What is the best way to feed them, and where to keep them in winter when they have to be fed? Or ought I to feed just before it gets cold, and then stop, and feed a little in the spring again?

WESLEY H. WASHICHEK.
Munden, Kans.

ANSWERS.—The best thing is for you to feed your bees several weeks before this reaches you. If you cannot do that, and the probability is that you can't, then you must do the next best thing. If possible, get enough feed into the hives before cold weather settles down in full force. Of course, if you have combs of honey to give them, there need be no trouble, for you can place that adjoining the brood-nest and it will be the same as though the bees had stored it there.

But the probability is that you have no honey, and must depend upon sugar syrup. Get them to take it on warm days—providing, always, that you have warm days. Feed it warm—hot. If hot enough to burn their tongues, there isn't much danger—they will go at it carefully. But be sure that the syrup is not burnt, for burnt syrup as a winter food is death to bees.

Maybe you will have weather that will allow them to make good work on a feeder, but if very cold it may be safer to put the syrup in combs, and put the combs close up to the bees, the same as in giving combs of honey. They will work on a comb adjoining one of the combs on which the bees are clustered, when they would not leave the cluster to work on a feeder.

Fill the syrup into the combs by letting it fall in fine streams upon the combs from a height of three, four or five feet. Have the syrup as hot as possible without melting the combs. Give it to the bees hot. To get the syrup to fall in fine streams, pour it through an old tin fruit-can with its bottom punched full of holes by an eight-penny wire-nail. Punch the holes through from the inside.

◆

Swarming—Queen-Excluding Zinc.

1. Suppose I don't want increase, a swarm comes out, I hive them, set them by the parent colony, put a bee-escape on the entrance of the old hive, thus throwing all the flying bees into the swarm; at the end of four or five days, I open both hives, lift a frame from the swarm, shaking the bees back into the hive, as I do so, put in its place a frame from the parent colony, and continue through the hive in this way, cutting out queen-cells if any. I have now taken from the swarm what comb they have built during the five days, but have given them full frames of comb, brood and bees—will they not work right along without further swarming? The empty hive could be used for the next swarm.

2. Does a queen-excluder lessen the production of honey?

3. Will bees enter sections as readily with as without an excluder?

Brookewood, Va. F. T. Brooke.

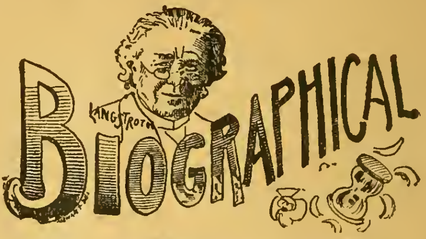
Answers.—1. We wouldn't like to anwers very positively a question of this kind, for bees often do quite differently from what we think they ought to, and we have never tried exactly the plan you state. From some experiments on a nearly related line, however, we should say that generally there would be no further swarming, but not always. Furthermore, we should expect that in many cases the bees themselves would destroy the queen-cells if you did not do so. If you should try the experiment, by all means report the outcome.

2. The general testimony is that it does not.

3. Probably there is not much difference, although there must be some, for the farther sections are from the brood-nest the more loth are the bees to make a beginning on them.

◆

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with Bee Journal one year, for $1.10.



No. 57.—G. P. Hachenberg, M. D.

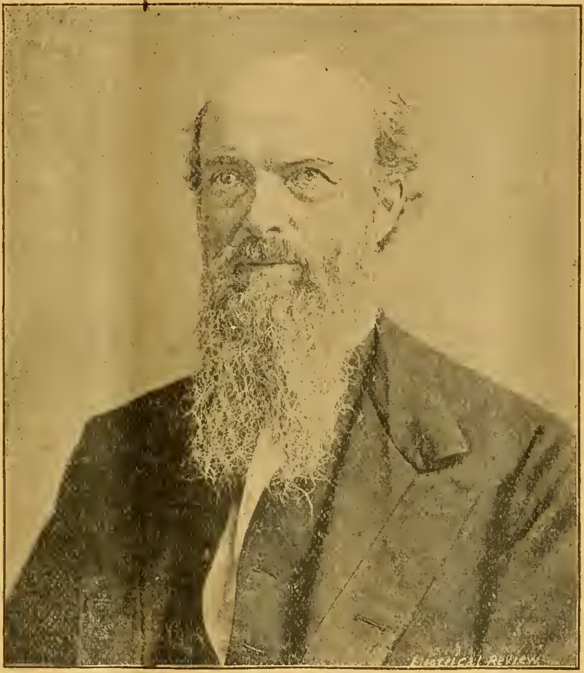
The bee-fraternity has within its ranks many noted doctors, as well as lawyers and statesmen. Dr. Hachenberg is one of the first named. He has frequently been a contributor to our columns, hence his name is familiar to many readers of the Bee Journal.

We think that his biography will be exceedingly entertaining to those who served in the late War, as the Doctor was a prominent figure in the medical department of the Northern army during those few but awful years; and judging from the enviable record which he made, Dr. H. must have been a valuable acquisition. The following sketch tells something about his busy life:

The annexed likeness represents Dr. G. P. Hachenberg, of Austin, Tex. He has been a scientific contributor of the American Bee Journal for the last several years, and has one of the most extensive apiaries in Texas. The biographical sketch of this remarkable man is one of intense interest, at least it should be so, to every ambitious young man. He was born in Freeburg, Union county, Pa., on July 20, 1824, and in his early youth received his business education in his father's store. At the age of twenty he qualified himself as a dentist, and in that profession defrayed his expenses at Marshall College.

After leaving college he took up daguerreotyping, and in that art defrayed the expenses of his medical studies. In 1850 he graduated in the medical university of the city of New York, and for about ten years he practiced medicine in Springfield, Ohio; there he made his *debut* as a medical writer, in which capacity he served many medical journals of this country. He served as surgeon in the late War, and owing to his known reliability and executiveship was assigned to many different posts. We make the following extract from the Hudson Daily *Star:*

"In examining into the official record of Dr. Hachenberg's service through the War of the Rebellion. they reflect great credit on his patriotism, humanity, ability and energy. Few surgeons of the United States army afford a more brilliant record......The following is a synopsis of the official record of the Doctor's service through the War of the Rebellion :



DR. G. P. HACHENBERG.

"In 1861 he professionally visited the hospitals of the Army of the Potomac, and those of Washington, Georgetown, Philadelphia and Cincinnati.

May 13, 1862—Ordered by Gov. Todd as Ohio State Surgeon to the battlefield of Pittsburgh Landing.

"June 1, 1862—In the same capacity to the battlefield of Princeton, W. Va.

July 4, 1862—Commissioned into the United States service, and assigned to the 28th O. V. I. With this regiment served as field surgeon in the battles of Bull Run 2nd, South Mt., Antietam, etc.; served in Post Hospital at the mouth of Antietam, and organized and held charge of Post Hospital, Clarksburgh, W. Va.

"Spring of 1863—Resigned, owing to disability from sickness contracted on the battlefield of Antietam.

"Sept. 21, 1863—Ordered as Ohio State Surgeon to the battlefield of Chickamauga.

"Sept. 30, 1863—Ordered on duty for the relief of the rebels injured at the Maxwell Barracks, Nashville, Tenn.

"Oct. 7, 1863—Ordered to United States Army Hospital No. 1, Nashville, Tenn.

"Oct. 23, 1863—In connection with the surgical duties of the hospital, he was appointed as one of the Board for the examination of enlisted men, who may be recommended for discharge from the service, or transferred to the Veteran Reserve Corps; likewise, for superintending the preparations of pathological material for the National Medical Museum at Washington; and for making post mortem examinations of all that died in the hospital.

"Feb. 27, 1864—Ordered to take charge and re-organize the 'Rebel Officer' ward of said hospital.

"May 11, 1864—Assigned as Surgeon in Charge of Veteran Reserve Corps, Nashville, Tenn.

"May 29, 1864 — Temporarily assigned to Cumberland Hospital.

"June 16, 1864—Again took charge of Veteran Reserve Corps.

"Aug. 18, 1864—Temporarily assigned to United States Army Hospital No. 8, Nashville.

"Sept. 13, 1864—Ordered to conduct hospital railroad train from Nashville to Louisville.

"Sept. 28, 1864—Ordered to visit Capt. Meigs' Battery in addition to the duties of the Veteran Reserve Corps.

"Jan. 5, 1865—Ordered to dissolve Convalescent Camp of the 16th Army corps—3,000 in number.

"Jan. 14, 1865—Post Surgeon of 1st Kansas Battery, 4th Indiana Battery, 21st Indiana Battery, 1st Tennessee Lt. Artillery Battery A., and 2nd U. S. C. Artillery.

"Feb. 9, 1865—Ordered to re-organize Contraband Camp.

"March 20, 1865—Ordered to Exchange Barracks, Nashville, Tenn.

"April 7, 1865—Temporarily Post Surgeon of 4th Ohio Inf. Battery; 3rd Inf. Battery; 1st Illinois Lt. Artillery; A. & F. 1st Illinois Lt. Artillery, in connection with the duties of Exchange Barracks.

"......Medical Examiner of the 'Bounty Jumpers' in the Tennessee Penitentiary.

"April 17, 1865—United States Army services ceased at the Exchange Barracks, where the Doctor diagnosed more than 20,000 men. Discharge papers endorsed by the Medical Director, 'The services were well and faithfully performed.'"

Dec. 4, 1865, he was appointed Examining Surgeon of the Pension Bureau.

In the spring of 1868, he was re-commissioned as surgeon, and ordered to take charge of the hospital at Ft. Randall, D. T., and on reaching his post of duty, in connection with his regular duties, was placed on Gen. Herney's staff to see after the medical wants of the Sioux Indians under Spotted Tail. At this post he received the extraordinary orders to make a collection of Indian skulls for the National Medical Mueseum, for the purpose of solving the ethnological question as to the origin of the Indian race. Through many dangerous and thrilling events, the Doctor collected over a hundred skulls, representing ten different tribes. Several of these skull expeditions were reported in the *Daily Star* and Rochester *Express*.

In 1869 he delivered his lecture on his noted invention of Musical Telegraphy, in the Crosby Opera House of this city—a lecture which was repeated in many cities of the United States. From a record in *Godey's Ladies' Book*, March number, 1864, on the basis of this invention he is considered the pioneer of the telephone.

After his lecture tour, he took charge of the surgical work of a medical house in the city of New York, and there performed some of the most heroic surgical operations on record. In 1871 he took charge of the Rochester Infirmary, and conducted that institution for three years.

He left the army with a ruined health, and finally he deemed it necessary to seek a warm climate. He tried Philadelphia, and afterwards near Washington, but with no benefit; so he migrated to Texas. Under a progressive disability, he was physically unfit for the practice of medicine, and for many years was a great sufferer; but with his restlessness and indomitable energy, he wrote his great medical work, "Medical Consultation Book," and after 20 years' work on it, had it published. It was issued only a few months ago.

When engaged on his book, at first mainly as a matter of recreation, he bought 8 colonies of bees; but knowing next to nothing about bees, they all died in one season, but two colonies. He saw the misfortune in his own ignorance, and with characteristic energy and pride not to be balked, he at once made the study of bees a subject of science. He subscribed for the AMERICAN BEE JOURNAL, and secured the best bee-literature to be had. With the acquired knowledge extraordinary good luck set in, and from the 2 colonies, in course of ten years, he developed one of the largest apiaries in Texas.

DR. WASHINGTON POPE.

The Ladies' Home Journal, of Philadelphia, Pa., and the BEE JOURNAL—both together for one year for only $1.65. The first-named journal is the grandest monthly for the home that is published in the world to-day. New or old subscribers to either journal can take advantage of the low rate of $1.65 for the two papers. This offer expires on Feb. 1, 1894. Send all orders to the office of the BEE JOURNAL.

RANDOM STINGS

FROM THE STINGER.

Ach, dot pee, him bin so funny;
Und he make der fine, schweet honey,
Vat eferypody likes.
Vy, dot pee, him vork like crazy,
Und nefer vas him lazy,
Like mens vat goes on schtrikes.

A bee-keeper in one of the honey counties of California recently shuffled of his mortal coil away out at his lonely mountain home because he was desolate and despondent. It is really a cheerless life some of those California apiarists lead, out in those lonely canyons, far from the haunts of man, and without the cheering influence of woman. At best such a life must be irksome, but when it is coupled with the fact that all one's labor is to go for naught because prices for honey are low, and what little he does get will be absorbed by the expense account, is enough to drive almost any man out of his mind. Sheep-herders and bee-keepers in California are often to be found in the most unfrequented places in that strange State; the former often become subjects for the mad-house, and many have gone to their grave by the suicide route.

The Stinger has never heard of any bee-keeper going insane at one of these canyon retreats, but he would not be surprised to know that one or more of them have lost their reason through leading so retired a life. It is mainly for this reason that The Stinger has been afraid that the amiable Rambler might become despondent and do something that the bee-keeping world would regret. Perhaps the only thing that has kept him from becoming like some of those unfortunate apiarists who have become bereft of their reason is, that he manages to ramble around more than the average manipulator of bees and hives.

The Stinger knows a remedy for those men who are leading such cheerless lives. It is this: Let each take unto himself a good and faithful wife, and their lives will then be filled with bright sunshine. Even if our facetious friend, Rambler, should heed this advice, he would find himself a better bee-keeper, and, I may say, a more useful citizen.

The Stinger recently caught a skunk in his honey-house. A trap had been set in the house to catch a rat that was known to get into the room, which was, in truth, nothing more than a cloth-house, as the sides of the structure were composed of cheese-cloth. One night a small skunk found his way into the place, and got his feet, at least one of them, into the steel jaws of the trap. I did not venture to take him out of the trap alive, so I took a gun and shot the little fellow, thus causing his death. That honey-house has been more odoriferous than any apothecary shop ever since. Fortunately, all the honey had been removed from the place some weeks previously, else I would have some fears that the honey might take up a little of the unpleasant scent that pervades the tent-house.

When the Prophet Rockenbach (see page 532) gave his set of commandments to the *Progressive Bee-Keeper*, he forgot a most important one. It was this: Thou shalt subscribe to, and be a diligent reader of, the AMERICAN BEE JOURNAL, that thy days in the land may be long, and that thy worldly store of goods, especially of honey, may be great.

Here is a sample of the intelligent conversations that are held in the land famous for its baked beans and brown bread:

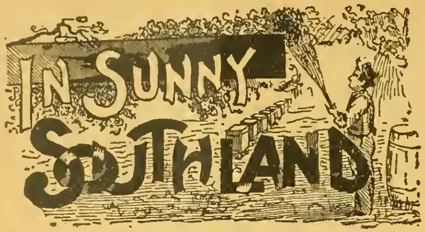
Mrs. Sapmind—"Well, I do declare! Them Western folks is growin' crazy."

Mrs. Lisner—"Why, what's the matter now?"

Mrs. Sapmind—"Matter enough. Here's an article in this paper about 'lynching bees out West.' When folks haven't got nothin' better to do 'an go around lynchin' bees, I've got my opinion of 'em."

Have You Tried to get a new subscriber for the BEE JOURNAL this fall? We offer to throw in the balance of this year free to new subscribers for 1894, besides their choice of one of the books offered to them on page 645 of this JOURNAL. Then we also give a premium to a present subscriber who will send in new ones. It seems to us that our liberal offers this fall ought induce every one of our readers to aid in doubling the circulation of the BEE JOURNAL within six months. Why not help do this, and then see what a grand journal we can furnish to everybody when once the increased number of readers is secured? If each present reader would send only one new subscriber besides his or her own renewal before Dec. 1st, the thing would be done. Will *you* do it, reader?

Great Premiums on page 644



CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

A Big Yield in California.

MRS. ATCHLEY:—The season is now about closed here. My crop of honey was quite heavy, being 11 tons from 75 colonies, spring count.

W. A. WEBSTER.

Bakersfield, Calif., Nov. 1, 1893.

Friends, just think of such a yield—nearly 300 pounds per colony, spring count. JENNIE ATCHLEY.

Birds Destroying Bees, Etc.

MRS. ATCHLEY:—Do you know of any way to prevent the birds from eating bees? They are very bad here. It would require a man with a gun all the time to keep them off. I think I shall try wire-cloth, such as we use for chicken coops, only with smaller mesh.

Also, do you protect your bees in winter? I have let mine take care of themselves for two winters, and have lost none; but our winters are very mild here. I leave them plenty of honey, and last winter they were flying out nearly every day.

How do you keep honey from candying? I have quite a lot of comb honey on hand, and it is dull sale at present. I will try and hold it until winter, when there is more demand.

El Paso, Tex. J. H. COMSTOCK.

Friend Comstock, I have never been troubled by birds eating my bees, therefore I am unable to do you any good. I would try running the birds off by shooting at them, and if unsuccessful I would "try, try again;" and when you succeed, please tell us how you did it. If any of our readers know a remedy to keep birds from eating bees, let us know.

No, I do not protect my bees in winter, only see that they have food, and dry quarters. Our bees usually gather some honey all winter at this place.

I do not know of a way to keep honey from granulating, but I think when the air is entirely excluded it seldom candies; and I seldom find honey candied sealed up in the combs. JENNIE ATCHLEY.

Fine Queen-Cells.

We have some old breeders that have just begun to "give down," and I tell you we are getting from 8 to 10 fine cells about every ten days from each of them; and we also find they will accept wax-cells right along where the queens are "giving down;" or when we have a queen too old and feeble to tear down cells, it is an easy matter to get them to build cells right along, and with but little trouble. JENNIE ATCHLEY.

Robbing a Church in Texas.

Friends, just think of such a thing—robbing a church! Well, we are going out to-morrow to *rob* a church. At Oakville, 24 miles from Beeville, there is a colony of bees in the walls of the Baptist church, and has been there for years. While Willie and Charlie were transferring bees near the church a few days ago, they could see bees going directly to the church from where they were at work, working at the honey. On making inquiry, they found that bees had occupied the church for years, and there may be more than one colony in it.

The bees swarmed one Sabbath, during church time, and the windows were all up, and the bees made such a noise, and came into the house so badly, that the preacher had to dismiss his congregation on the short order plan, by telling them to get out quickly. The church is now wholly given up to the bats and bees, but we will try to relieve the "pesky bees," as they call them. But somebody else can have the bats.

There are also two colonies of bees in the court-house of the same town, that we may get permission to secure; if so, I will tell more about it later on.

We also have directions to a ranch on the Nueces river, where there are 12 bee-trees in one live oak piece containing not less than one acre. There were 13 trees containing bees, but some young sporting lads cut one, taking out 53 pounds of honey. Now this is what we might term a wild, woodland apiary.

We will also give more of the details when we cut the trees.

The bees and all are given to us by the owners. We will stop on the road to-morrow and gather up some bees at a house where the man said he would give us the whole business, to see if we could handle them. We think this an easy way to pay for them, but he thinks not, as the bees have driven everything and everybody off, that fooled with them, for years. Anyhow, we are not much afraid to tackle them.

Jennie Atchley.

Queries and Replies

Number of Langstroth Frames for a Colony at Any Time.

Query 898.—1. What is the greatest number of Langstroth brood-frames you permit a colony to have at any time? 2. When do you allow the most, if you vary the number? 3. Also, please state whether for comb or for extracted honey.—Colorado.

1. Ten. 2. All the time. 2. Both.—S. I. Freeborn.

Eight frames at all times, and for all purposes.—Mrs. J. N. Heater.

1. Usually eight. 2. Before the honey-flow. 3. Comb.—Eugene Secor.

1. All it needs. I have given 32. 2. When most needed. 3. Extracted.—A. B. Mason.

1. Eight frames. 2. I do not vary the number. 3. For both.—Mrs. L. Harrison.

1. Ten. 2. I do not vary the number except with small colonies. 3. For comb honey.—J. H. Larrabee.

1. The equivalent of ten Langstroth frames. 2. During May and June. 3. Comb honey.—R. L. Taylor.

1. Eight frames. 2. Eight all the time. 3. For comb; for extracted, from 8 to 24.—H. D. Cutting.

1. Ten. 2. I do not contract, except possibly in the fall when I prepare for winter quarters.—J. P. H. Brown.

1. Thirty, when run for extracting. 2. During the honey harvest, when they become very populous.—J. M. Hambaugh.

For comb honey, eight all the time. But I'm not at all sure that is best. Nine or ten might be better.—C. C. Miller.

1. Eight. I always have the hive full except in some cases after hiving new swarms, and wishing to work for comb honey.—A. J. Cook.

1. Ten. 2. In May and June. 3. For comb. In working for extracted honey I use, according to the wants of the colony, from 10 to 40.—G. M. Doolittle.

About ten, when the queen is laying best, to be reduced to eight at swarming time. A colony for extracted honey needs two or three times as many.—P. H. Elwood.

Eight Langstroth frames is my average, and I never went above ten. The time to increase, is when you want more bees—for either comb or extracted.—Will M. Barnum.

Ten, and I do not vary the number at all, as I consider brood-combs as good a division-board or dummy as I can make. I do not believe in so much "fuss and feathers" in bee-keeping.—C. H. Dibbern.

1. All they can fill to advantage. For extracted honey I would start with ten, and tier up as many stories as convenient. For comb honey, I would start with eight. 2. When I need them.—Emerson T. Abbott.

I use a 10-frame Langstroth hive, and use all the frames in the honey season. I use but nine in wintering. I work for comb honey altogether, and use nothing but sections in the upper stories, except for experimental purposes.—J. E. Pond.

I use the Langstroth hive, 3-stories high for extracting, 8 or 9 frames in a set—about 25 frames; 30 would do no harm. I winter my bees in two stories. I have the two sets of frames solid full of honey, take the third set off in September or October, and pack them away for spring feeding. If not wanted for feed the next spring, then extract them.—E. France.

1. Ten. 2. When the weather gets warm, and new honey begins to come in, give them frames of comb as fast as they can use them until you get the ten, and by this means have lots of bees when the honey-flow comes. It is a bad

idea to splice a stick that is too short, but awfully easy to cut it off if it is too long. For either comb or extracted.—Mrs. Jennie Atchley.

1. At present I use no hives that take over eight Langstroth brood-frames. I have had colonies that would profitably use 12 early in the summer. Colonies run for extracting may more profitably use a large number of brood-combs than those producing comb.—James A. Green.

1. I do not use the Langstroth frame, but I would judge that not more than ten should ever be allowed, except in a two-story hive, for extracted honey. 2. The largest number of frames should be used where there is a very prolific queen, and in the height of the breeding season.—M. Mahin.

I use *one set*—be it 8 or 10 combs—to each brood-chamber. In a warm climate a 10-frame Langstroth hive I believe is best for all purposes. One of the problems I have to contend with is how to avoid the misfortune of having an empty (empty of stores) brood-chamber at the close of the early honey harvest.—G. W. Demaree.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Dec. 7.—Carolina, at Charlotte, N. C.
A. L. Beach, Sec., Steel Creek, N. C.

Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

Dec. 13, 14.—Eastern Iowa, at Delmar, Iowa.
Frank Coverdale, Sec., Walton, Iowa.

Dec. 19, 20.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Dec. 28, 29.—Kansas, at Ottawa, Kans.
J. R. Barnhard, Sec., Ottawa, Kans.
1894.
Jan. 24, 25.—Vermont, at Burlington, Vt.
H. W. Scott, Sec., Barre, Vt.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

Pres.—Emerson T. Abbott.....St. Joseph, Mo.
Vice-Pres.—O. L. Hershiser....Buffalo, N. Y.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

Convention Proceedings

Report of the North American Bee-Keepers' Convention.

Reported for the "American Bee Journal"
BY R. F. HOLTERMANN.

(Continued from page 629.)

At this time, Mr. J. W. Pender, of West Maitland, Australia, being asked to give some information about Australia, delivered an interesting address. In substance, he spoke as follows:

The Keeping of Bees in Australia.

"I am not a public speaker, but will give a few facts which may interest you, but first allow me to convey to you the hearty greetings of the bee-keepers of New South Wales. I represent the Hunter River Bee-Keepers' Association—it is the only one doing any good in apicultural work. The fee is 60 cents. Our object is to try to introduce the new system of keeping bees; the old gin-case system has been in vogue. Much work has been done by the association. The Berlepsch hive was much in use, but the American system has been introduced, and is becoming popular. The Langstroth hive is now mostly used.

"We have a fine country for the production of honey. For nine months in the year we get honey from the bees. There is no truth in the statement that bees, knowing they can gather honey almost the entire year, store no surplus and remain idle.

"We have many black bees, but we are introducing the Italian. We find them better workers, and more docile. At one time no bees could be mailed, but now, owing to the efforts of my son, W. S. Pender, and other members of our association, they permit queens to pass through the mails. We get queens from America and Italy.

"The sources of honey are white clover, alfalfa or lucerne (alfalfa grows luxuriantly; it is the chief fodder-plant for hay making, which our farmers crop six times in the season), fruit and flower blossoms, and a great variety of gum trees, almost all of which bear flowers well supplied with honey in favorable seasons, giving a continuous supply of honey. On account of the hot country, and difficulty in transporting, we produce mostly extracted honey. Our honey is of good quality. We attempt to grade it. We get an average of 224 pounds to the colony, spring count, during a favorable season. To give a few instances of yields, 17 colonies (Mr. M. Scobie's at Bishop's Bridge), increased to 90, producing 7,000 pounds of extracted honey in 12 months. Most of the honey is taken in May and June.

"The apiary of Patten Binni took 7,000 pounds from 30 colonies, that is, from the old colonies besides the increase and the honey they produced. My own, Drumfin, apiary of 40 colonies, which I sent to an out-apiary shortly before leaving Australia, yielded in 14 days 16 60-pound tin cans of honey. A letter received from my son later stated that they had produced since 3,700 pounds, and in another two weeks he expects to take 2,000 pounds more.

"The wholesale price of our honey is 8 cents per pound. We have been trying to find a market in London, England. What they want there is a honey with no pronounced flavor, as the bulk of ours has.

"In New South Wales we have a meeting of bee-keepers every four weeks at night. Bee-keepers ride in from long distances to attend these gatherings. I think the American system of bee-keeping best for our country."

J. W. PENDER.

At the close of his remarks, on motion of Dr. Mason, Mr. Pender was elected an honorary member of the association, and received a badge.

Fixed Spacing—Brace and Burr Combs

Fixed spacing, and the building of brace and combs, was then taken up for discussion.

R. L. Taylor thought he would not care if he had a few burr-combs.

The question being asked, nine agreed with Mr. Taylor in his views.

A large number objected to these combs, the opinion being that they could be largely avoided by means of thick top-bars.

Mr. Taylor asked if it was desirable at the expense of distance—by putting in a heavy top-bar—to do away with a heavy top-bar; 33 voted to so do away with these combs.

E. R. Root thought the added labor, owing to brace and burr combs, was too expensive.

R. L. Taylor thought it depended upon whether one handled hives or frames; if frames were handled much, they should be free from these combs. Queen-breeders would object to them, as they were given to handling combs in the brood-chamber.

A discussion at some length followed on V-shaped top-bars, and some claimed that such top-bars lead the bees to building comb over the top-bar.

E. J. Baxter favored frequent handling of combs; he could by that method obtain better results.

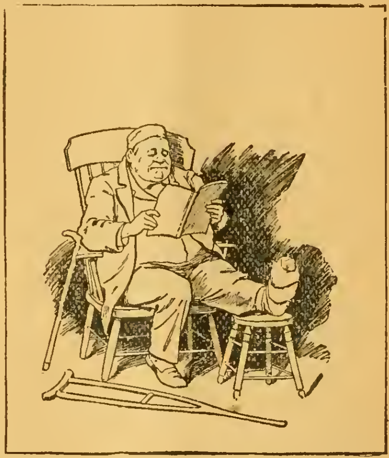
In reply to a question, Mr. Taylor said he had used thick and thin top-bars; with the former there were less burr and brace combs. He, however, objected to the loss of space.

This question was then asked by Pres. Miller; "How many think that any kind of honey-board is necessary between top-bars and sections?" Thirty-nine thought one necessary, and 57 thought otherwise.

Mr. Pringle—A good many bee-keepers use a sheet of perforated metal for an excluder.

Old Mr. Blobbs' Interesting Experiment.

(In 6 chapters, complete in this issue.)



No. 1.—OLD MR. BLOBBS—"So the stings of bees will cure rheumatism, will they? I'll have to try that."

(See No. 2 on next page.)

Dr. Miller, stated that a great change had taken place on the above question. A number of years ago James Heddon had made the statement in convention that when a brick was thrown up and it never came down, then bee-keepers would dispense with a honey-board for the production of comb honey. This appeared at that time to be the general view of other members.

SECOND DAY—AFTERNOON SESSION.

For the purpose of aiding digestion, Pres. Miller read a funny story. It was about a Dutchman. The Doctor looked, talked and acted like a Dutchman, and appeared to please everybody.

No. 2.—OBLIGING FARMER —"There's a hive of bees right here that are stingers, you bet!"

Although all members were not in the room, those from the various States and Provinces were grouped with the following result:

California, 2.
Colorado, 4.
Illinois, 43.
Iowa, 23.
Indiana, 6.
Kansas, 1.
Kentucky, 2.
Nebraska, 2.
New York, 15.
Ohio, 30.
Pennsylvania, 3.
Wisconsin, 9.
Ontario, 14.
Quebec, 1.
Maryland, 2.
Michigan, 20.
New Hampshire, 1.
Minnesota, 5.
Missouri, 4.
Vermont, 5.
Texas, 2.
Dist. of Columbia, 6.
Australia, 1.
Chicago, 8.

It was then moved by Mr. Cutting, and seconded by Mr. York, that a committee of three be appointed to revise the report which was being taken of the proceedings, and that the President appoint the committee. The motion was carried by a large majority, and the President appointed Mr. H. D. Cutting, Hon. Eugene Secor, and Dr. A. B. Mason. The same committee were given authority to pay George W. York a proper sum for publishing the report in pamphlet form, as heretofore, each member to receive a copy of the report free of charge.

The discussion on burr and brace combs was then continued.

Jacob Alpaugh—I prevent these combs largely by a proper bee-space, that being ¼ of an inch. Nothing will prevent them entirely. Twenty-one had succeeded in the manner that Mr. Alpaugh had pointed out.

No. 3.—"Here they come now! Look out for them!"

Mr. Wheeler—The width or thickness, or both, has to do with it. A wide top-bar, 1¼ wide by ⅜ inch thick will answer with ¼ inch space.

N. D. West—Of late I have spaced 1⅜ flush from center to center. I now use a top-bar 1 1/16x⅜ inch, and ¼ inch between the top and the lower story. The length of frame will influence the necessary depth of top-bar. If we get brace-combs we are more liable to burr-combs.

Dr. Miller thought ½ to ⅛ inch meant all the difference between brace-combs and no brace-combs.

E. R. Root said in reply to a question

from Mr. Muth, that he thought brace and burr combs could be prevented almost entirely. He was inclined to think that the thickness of the top-bar, irrespective of sufficient strength, had something to do with brace and burr combs.

H. R. Boardman—Close spacing only partially prevents brace and burr combs.

N. D. West—We should be careful to have combs in the center of the frames, and perfectly true in the frames.

The General Manager of the National Bee-Keepers' Union, Thomas G. Newman, then delivered the following address, entitled,

No. 4.—Old Mr. Blobbs—"Wow! Owch! Help! Murder! Police!"

The National Bee-Keepers' Union; Its Scope and Legitimate Work.

At the last election of officers for the Union, Amendments to the Constitution were adopted, which allow the Union to exert its influence and devote its resources "for any purposes in the interest of the pursuit of bee-culture, when such are approved by the Advisory Board."

This Amendment defines "the Scope" of the Union most fully. Its powers are circumscribed only by its available funds, and the "interests of the pursuit."

It remains with the Advisory Board to determine "its legitimate work." But that Board should always "feel the pulse" of bee-keepers generally, remain within the limits of the work sanctioned by their sentiments, and thus "keep in touch" with the spirit of "the ever-living present"—the times in which we live.

Prominent among the later suggestions as to a field of operation, in addition to the defense of the pursuit of bee-keeping when assailed by the ignorant and prejudiced, is that the Union should assume the aggressive, and prosecute adulterators of honey.

No. 5.—"Great Scott, I've got to run, or I'm a dead man!"
(See No. 6 on next page.)

Much as we may approve this sentiment, it must be admitted that there are difficulties to be encountered, because of the diversity in the laws of the several States. What is needed most, is a general law enacted by the National Congress of the United States against the adulteration of all kinds of food, applicable alike to every State and Territory. Then something may be accomplished in that line which will be beneficial—until that is done, I fear that we shall "labor in vain," except perhaps in isolated instances.

Another difficulty is that the analyzation of honey by chemists of even National reputation cannot always be relied upon for proof of sophistication. This has been proven by many samples of absolutely pure honey having been by them pronounced "probably adulterated." The reason for much of this confusion lies in the fact that the honey from localities varies in consequence of the diversity of soil, climate and atmospheric conditions.

I am glad to notice that the professors themselves are endeavoring to overcome these difficulties, by attaining more definiteness in this matter. We must await their further investigations and the adoption of a test which will be "infallible" before we risk the money of the Union on the prosecution of the scoundrels who practice the adulteration of our sweet product.

Another phase of legitimate work for the Union is to make its influence felt in legislative halls—in preventing unjust enactments, which are sought in the interests of rival pursuits, or those who are ignorant of the advantageous service of the honey-bee in the economy of Nature. In this line the Union has already done noble service, but that is capable of much enlargement.

No. 6.—"Well, I did run for once, but if I ever try the bee-sting cure again you may kick me from here to Jericho!"

Test cases, in every State, where suits against bee-keepers for maintaining a "nuisance," are desirable, and these can only be obtained by an organization like the Union, for the costs would be too much for individua efforts in that line.

The "moral effect" of the existence of the Union is something wonderful. Lawyers, judges, juries, as well as quarrelsome neighbors, are all influenced by the fact that there is an organization ready and able to defend the pursuit against injustice and maliciousness. The strength of a body corporate is wonderful when it is exerted in the defense of a righteous cause.

Organization is the "one thing needful" to-day. Apiarists must learn to act with and for each other. Then they can make their influence *felt!* Then they can secure "their rights," and command respect at all times and under all circumstances.

In an existence of only 8 years, the National Bee-Keepers' Union has gained victories to be proud of. It has compelled the Courts of the land to render just and fair decisions in cases where the keeping of bees was involved, and has won from the highest Courts precedents which will be pointed to as long as "law and order" shall endure. Cases are now common where judges "refuse to interfere with a business which the Courts recognize as legal"—that is, the keeping of bees!

In preventing trouble, the Union is just as successful as it is with a case in Court. It is always on the alert, with well-directed guns, and "keeps its powder dry."

The National Bee-Keepers' Union is now under the fostering care of the North American Bee-Keepers' Association, and I trust that it will endure for "the ages to come," and will bless all coming generations. We must not take the selfish view that as individuals we are safe from annoyance, and may never require its services in our own behalf. We should consider that we are "building" for posterity, and rearing a "tower of defense" which shall last long enough to be used by our childrens' children.

The Union's "Legitimate Work" is to follow in the line already marked out, and to grapple with any foe which may hereafter present itself—forming a "place of refuge" for the unborn millions of the twentieth century of the Christian era.

The Bee-Keepers' Union has already won a glorious record in the defense of apiarian interests. It is true its numbers are not as numerous as they should be, but the organization has made itself felt in every State and Territory, either directly or indirectly. If this has been done with a few hundreds—what might be done with several thousands? If a small company of "soldiers" have thus caused the rights of the pursuit to be everywhere respected—what may be accomplished by "an army" equipped for War?

Rise! for the day is passing;
While you are dreaming on

The others have buckled their armor,
And forth to the fight are gone;
A place in the ranks awaits you,
Each man has some part to play—
The past and the future are nothing
In the face of the stern to-day.

Stay not to sharpen your weapons,
Or the hour will strike at last,
When from dreams of a coming battle
You may wake to find it past.
Your future has deeds of glory,
Of honor, God grant it may!
But your arm will never be stronger,
Or the need so great as to-day.

THOMAS G. NEWMAN.

Chicago, Ills., Oct. 5, 1893.

The Adulteration of Honey.

Prof. H. W. Wiley was then called upon. He said the great points of success were the production and the marketing of honey, without these financial success would not come. Some undoubtedly kept bees for pleasure, but the majority could not be found in the bee-keeping ranks unless there was profit in the business. He was anxious to help bee-keepers in their market, but by adulteration bee-keepers had been cheated out of fully half the market for honey. There was at present no way of telling pure honey by chemical tests. He regarded pure honey as honey gathered from flowers and stored by them. If sugar were fed to bees with a proportion of sugar invert, it would be difficult to detect the fraud. A method not practiced in America, but in Europe, was to artificially invert sugar and mix it with an artificial article. With such samples as mentioned, he would hesitate to pronounce. Again, in the exudation from plant-lice, he had pronounced such as unadulterated. It was his intention to pursue this problem, and he thought they would be able to solve these problems, and detect adulteration. He wanted the association to know that he was anxious to help bee-keepers.

In reply to a question, Dr. Wiley said he had purchased his samples of extracted honey from stores. The bulk of impure honey had been put up by packers; some, however, had the labels of bee-keepers on the packages. He thought bee-keepers should see that no one counterfeited their labels.

The subject came of finding a package of honey impure, with the name of Chas. F. Muth & Son on it.

E. R. Root said that there were packages of honey with Mr. Muth's name on which did not read as the genuine labels did; some one was therefore practicing adulteration.

The impression was that no one believed that Mr. Muth adulterated honey, in fact, that Mr. Muth's well-earned reputation placed him above suspicion.

Dr. Mason laughingly remarked that he thought in Mr. Muth's case, Dr. Wiley was a little mistaken, and that bee-keepers didn't have much confidence in his statements.

Mr. Muth—One label mentioned in Dr. Wiley's report did not read as my label reads at all.

E. R. Root—If this fraud has been practiced in one case, it is altogether likely it has in other cases.

Mr. Muth said his friends know very well that he never adulterated honey. He told about a customer to whom he had been sending a carload of honey every four or five weeks for several years, with entire satisfaction. After Prof. Wiley's report came out, that some of his honey had been adulterated, his customer wrote that this time the honey was not satisfactory, and he would have an analysis made at once. To this, Mr. Muth had no objection, only he was afraid that he would send the samples to Dr. Wiley, in which case he had no doubt that he would have found them adulterated also. Fortunately, however, they were sent to a chemist in Pittsburg, and found to be strictly pure.

Dr. Wiley thought, in his case, the goods had doubtless been counterfeited, and instanced such a case in canned goods.

A recess was taken at this time, and after again calling to order, Dr. Mason stated that during the recess Prof. Wiley had requested him to invite the members of the convention to call on him in the northeast corner of the Government Building, where he had charge of a chemical laboratory.

(Continued next week.)

Your Winter Reading—have you got all the best bee-books on hand, ready for the long winter evenings that are now fast coming on? If not, why not get one or more of the standard apiarian books when renewing your subscription for another year? On page 669, we publish a book clubbing list which will save you money if you take advantage of its liberal offers. Then, on page 645 you will see that by sending us only a few new subscribers for the BEE JOURNAL, you can get some good books as premiums; and, besides, the new subscribers can at the same time have good books free. Just turn to pages 669 and 645, and see what we offer in the line of the choicest bee-literature. This is *your* opportunity.

CONTRIBUTIONS

An Experience in Keeping Bees on Shares.

Written for the American Bee Journal

BY DR. E. GALLUP.

The second season after coming to this State, I took 48 colonies of bees on shares. The proprietor had two young men carry them that were not very well posted. I found the bees in very bad condition, only about 4 or 5 colonies out of the 48 in any way fair condition; but the proprietor had lots of empty hives and spare combs where the bees had died. The combs were in good condition. I furnished foundation to offset against his ready-made combs. He also had two or more hundred pounds of dirty honey that he said I could use if it would be of any use to me. I found out from him about what time the bees usually commenced storing for extracting, etc.

He had what he called some excellent pure Italians, light-colored, gentle to handle, etc. But at the same time he informed me that the best two colonies he had for business, and the best two in condition, were what he called impure. He had procured the queens from some party, but they were not light-colored enough to suit him. I selected those two to breed from, and commenced stimulating in February. I had two rousing swarms from those two colonies in early March. I saved all the queen-cells—some 30—made good, strong nuclei of one comb each, and managed to get the queens all saved and fertile.

In the meantime, I reared queens from those two colonies, and superseded all my old, worthless queens (and the larger proportion of the old colonies had worthless queens in them).

Sometime in the latter part of March the proprietor looked through the apiary, and examining the large number of "small swarms," as he called them, reported to a young man that his apiary was ruined. "Why," said he, "the old fool does not know the first principles of bee-keeping. All writers say that 'small swarms' are worthless, and here he has divided them up until there is not a full colony in the yard!" Mind you, I then had 2½ months before extracting time, and had foundation, and ready made comb, and the dirty honey, to manufacture into bees. But to the facts.

I secured 6½ tons of honey, and had 108 colonies of bees in the fall—all with extra-prolific queens, and all in two-story Langstroth 10-frame hives, with abundance of honey to last them a year (if it was required) left in the hives. Then we had quite a laugh over his calling me a "fool," etc.

The following season was one of our California poor seasons, but I made a fair increase, and got 3½ tons of surplus, when my immediate neighbors got nothing. The following winter I divided up and sold out to Mr. McIntyre.

The way I obtained my surplus in the poor season, I never put on a super until I filled up the breeding apartment to overflowing with bees and hatching brood. I took one comb of sealed brood from any colony that was strong enough to spare it, and inserted it in the hive that I was to extract from, until I had the whole 10 combs completely filled with bees and brood; then that colony was ready for business when the short flow of honey came. Of course I inserted either a ready-made comb, or a frame filled with foundation in the hive that I took the comb of brood from.

Here allow me to remark that the two queens that I selected to breed from were dark, leather-colored, extra-large and prolific. I superseded his extra-light pure queens, as he called them, for it would take at least two of them to keep a colony populous enough to store any surplus.

Santa Ana, Calif.

Proper Care of Honey—How to Ripen and Keep It.

Written for the American Bee Journal

BY GEO. F. ROBBINS.

I read the article of C. W. Dayton, on pages 470 and 496, with much interest. My interest in the subject was in fact considerably aroused by some of his utterances. I agree with him that much more attention should be given to the care of honey after it is stored, but as to what is proper care I think he misses the mark. He seems to think that honey must be left on, or in the hive, in order to become best ripened and flavored. I am confident that is a mistake. If properly cared for, honey does as well out of the hive as in it—in many cases even better.

In the case of the honey that soured on the way to Cheyenne, the error was not in extracting when it was one-third sealed, but in the after treatment. I judge it was run into screw-cap cans, the caps screwed on, of course, tumbled into a warm honey-house, afterwards into a wagon and hauled through a hot sun, so that in both cases it would heat, but could not evaporate, and it soured in consequence. My friend, if you had put that honey into stone jars, or other open vessel, tied a cloth over each one and left it in a hot room to cook, you would have had a very different result. It certainly ought not require more than a second thought to convince you that those close cans were not the proper vessels in which to ripen honey.

That honey may be extracted too rank to ripen even in a stone jar before it sours, is no doubt true. I have taken a comb that had been filled with clover honey inside of a day or two, and put it in the upper story of a hive where no bees could get access to it, and it would promptly sour. I have also shaken some of this same raw nectary honey out on a painted hive-cover, where the summer sun would strike it, and a few hours later licked some of it off a knife-blade—or my finger—about the thickest, richest honey I have ever tasted. Now, don't you grasp the idea? Don't you see the difference? The water quickly evaporated from that sprinkled on the hive cover, while it could not from that in the comb—that is all.

From the above examples alone I gather—First, that bees can add nothing to the flavor of honey after it has left the honey-stomach. Second, if proper conditions are observed, this honey may be taken the moment it is deposited in the cell, and ripened artificially as well as the bees can do it. In other words, the only thing that improves the quality of honey is ripening, *i. e.*, expelling the superfluous water.

The correct conditions for ripening are heat and facilities for the escape of water in proper proportions. Too much of the former for the latter will sour the honey. Hence, while that honey extracted when one-third sealed could not ripen in a screw-cap can, it would have done so in open jars or cans in a warm, dry room. Likewise, the watery stuff that will shower out of a comb when shaking off the bees, would probably sour in a four-gallon jar, while it would ripen nicely in a shallow bread pan, out in the sun. Suppose we test that specifically next year.

Mr. Dayton thinks that comb honey is best that has staid on the hive long enough to become travel-stained. An old settler of this region (central Illinois) once told me that the French, of St. Louis, used to dress their beef and hang it up until it began to st—smell, when it was ready to eat. I could but wonder when I read those words by Mr. Dayton, if his taste was not similar in regard to honey. I am satisfied that while honey gains nothing on the hive that cannot, under proper conditions, be gained elsewhere, it does at least in this clime, lose in quality by being left on very long.

I am not prepared to say that of two sections of honey removed during the honey-flow, one somewhat travel-stained, the other just finished in its marble whiteness, the former is not superior to the latter in richness. It may be slightly so. But I do say you may take those two sections of honey to a honey-house situated in a hot, sunny place, with a free circulation of air all around and beneath it, pack them in a box, being sure to set the box at least six inches above the floor, and away from the wall—I think higher above the floor is better—and in a few weeks at least the white one will be fully equal to the other. At the same time, you may put the travel-stained section back on the hive, and take the marble white one to this same honey-house, and at the end of three months the former will be far inferior to the latter. While that in the honey-house retains all the original rich, oily flavor found only in honey, in an intensified degree, that on the hive loses that flavor, and often acquires a strong, moldy taste. I have noticed the rancidness especially prominent when the hive was pretty well shaded.

In the dry atmosphere of Colorado and her neighboring States, where the temperature is pretty uniform, with nothing to intercept the heat of the sun, or the sweep of the winds, such might not occur; but here in Illinois the climate is variable in every respect. The humid atmosphere of a wet spell, with changes of temperature, must be what injures our honey. That packed in the honey-house, as I have described, is apparently less affected by such conditions than that on the hive out-of-doors. I see no reason why the latter should improve for a time and then take the back track. But that it does retrograde I am certain.

I do think I have tested the matter too often with results too uniform to be mistaken. I have formed no snap judgment in this case. I was several years aided by the verdict of others at my table, in settling down to my present conclusions.

I have been insisting upon these things regarding the care of comb honey especially, for several years, having taught them in different bee-papers. I don't know whether my efforts have made much impression or not. I am one of the "small fry," and very likely my feeble switchings do not attract as much attention as the wigglings of a bigger tadpole. But—to change the figure—many a person without one-hundredth part as much sense as—Bismarck, knows some things that Bismarck never knew, and thinks and utters some good thoughts that never occurred to him. I am one of them—laugh if you will. The care of honey is one of my hobbies. I believe the general quality of the honey in our markets could be and should be vastly improved. At the same time I believe that my own views concerning the proper treatment of the article—that is to say, "my method"—are of no less importance than the subject itself.

Mechanicsburg, Ills.

Location and Overstocking—Nectar Secretion.

Written for the American Bee Journal

BY H. F. COLEMAN.

Brother Doolittle's theory as to *location and overstocking*, from my experience, is correct. Owing to the peculiar mode of farming in my immediate vicinity, golden-rod and asters are rather scarce within a radius of more than a mile from my bees, but my bees have gathered stores equal to other bees surrounded immediately with large quantities of golden-rod and asters.

We thus have it demonstrated that there is but little danger of overstocking a fair field, and that up to the point of overstocking there is but little difference if any in locations; that is, if the locations have the same kind of honey-producing flora.

My bees, in the instance given, had all the flowers that they could attend, and were thus kept busy all the time, while other bees, seemingly more favorably situated, did no better, simply because they could not work more flowers than mine, although more flowers were in reach of them to work.

PLENTY OF FLOWERS, BUT NO NECTAR.

Bee-keepers in this section, this fall, have seen verified the assertion that honey-producing plants sometimes fail to produce honey. Asters were never in greater abundance, and never bloomed more profusely here than this fall, but from some cause they failed to yield nectar to their usual extent. In some localities, and where asters greatly abound, the bees have gathered but a meager supply of honey, and will have to be fed up for winter.

As to my bees, I have 75 colonies in reasonable condition for winter, with but little feeding. They gathered their supplies from golden-rod and heart's-ease, with perhaps a little aid from asters.

Sneedville, Tenn.

Convention Notices.

NORTH CAROLINA.—The Carolina Bee-Keepers' Association will hold its 3rd annual session at the Court House in Charlotte, N. C. on Dec. 7th, 1893, at 10 a.m.
Steel Creek, N. C. A. L. BEACH, Sec.

KANSAS.—The Kansas State Bee-Keepers' Association will meet at Ottawa, Kans., on Dec. 28th and 29th, 1893. Free entertainment to all members in attendance. Come and get acquainted. J. R. BARNHARD, Sec.
Ottawa, Kans.

IOWA.—The Eastern Iowa Bee-Keepers' Association will meet at Delmar, Iowa, on Dec. 13 and 14, 1893. All interested in bee-culture are requested to be there, and to bring with them any thing or fixture that might be of interest to bee-men.
Welton, Iowa. FRANK COVERDALE, Sec.

VERMONT.—The 19th Annual Convention of the Vermont Bee-Keepers' Association will be held in Burlington, Vt., on Jan 24 and 25, 1894. Programmes later. All interested in apiculture are invited to be present. Whether you live in Vermont or outside, come to the Burlington meeting. H. W. SCOTT, Sec.
Barre, Vt.

ILLINOIS.—The Illinois State Bee-Keepers' Association will meet at Springfield, Ill., on Dec. 12 and 13, 1893, in the Senate Judiciary room at the State House. The Illinois State Grange, the Illinois State Horticultural Society, and the various Stock Breeders' Associations meet at the same time, and in the several rooms of the State House. Railroad fare has been secured on the Certificate plan, 1⅓ rate. Those attending, to get the rate, must pay full fare going, and get a Certificate of the agent where the ticket is purchased. Rates at the hotels are secured at $1.50 per day, where two or more days' board is paid. The Horticulturists and Bee-Keepers are to make their head-quarters at the Hotel Palace. Come, everybody, and have a good time.
Bradfordton, Ills. JAS. A. STONE, Sec.

LETTER BOX
REPORTS PROSPECTS &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Report for the Past Season.

When I got home from Florida, in April, I found my 5 colonies of bees in splendid condition, having wintered in large chaff-packed cases. I increased them to 10 colonies, and secured over 100 pounds of honey in one-pound sections, besides a full supply for family use. The best colony of blacks gave me 65 pounds, and so on down to nothing. I have just sold out the whole at auction, the best colonies bringing $3.50 each. I shall now go to Florida, where I intend to put in my whole time with bees for the next few years. The Bee Journal comes as a welcome visitor, whether here or there; I should not want to keep bees without it. Edgar B. Whipple.

Hillsborro, N. H., Oct. 31, 1893.

The Season in New Hampshire.

Early spring was cool and backward, and bees built up slowly, but during fruit-bloom the weather was fine, and bees just boomed. My bees commenced swarming on June 1st.

We had a continuous honey-flow from early fruit-bloom, until the fading of white clover. My bees did well—considerably better than the average in quantity, and the honey was of superior quality.

Fall flowers yielded but little, my bees just about holding their own. I have again, as I usually do in the fall, strengthened my colonies by uniting, putting the bees of 43 colonies into 26. In order to bring them to my standard for winter stores (30 pounds), I have had to feed some.

To-day finds my hives full of bees, with 30 pounds of nutritious food, and each hive enclosed in an outer case, packed with dry planer-shavings, with a porous cushion, 8 or 10 inches thick, over the frames. This preparation, to my mind, solves the "winter problem," as my experience for several years proves. J. P. Smith.

Sunapee, N. H., Nov. 1, 1893.

Loss of Weight—Taylor Experiments.

In reply to O. B. Barrows' question, on page 569, I will say that as his bees were wintered in a cool, dry cellar, those colonies that were strong to commence with, and especially those occupying the upper tiers and warmest part of the cellar would have reared a large amount of brood by April 1st, which would require the consumption of much honey, so that a loss of 20 pounds, including dead bees, would not be at all surprising; while those that went in weak in numbers, occupying a cold part of the cellar, and with other conditions unfavorable for breeding, necessarily consumed but little honey. If next spring, he will compare those colonies that shall have consumed the most with those that consumed the least, and notice how much brood each is rearing, it will be easy for him to see why one consumes five times as much as the other.

It seems to me that R. L. Taylor's report, on page 563, to be of any practical value, should state approximately the amount of brood each of the different classes or colonies reared during the different periods, since a pound of brood represents more than one pound of honey. I think it possible that those that, according to his report, seem to have done the best, have actually done the least. Several methods present themselves to my mind for determining the amount of brood reared, but it is not necessary to give them here. The question of comparative value of starters, foundation and drawn comb, is an extremely important one, which I hope may yet be solved. I. W. Beckwith.

Lupton, Colo.

Presidio County, Texas, Etc.

Tell the Bee Journal readers not to go to Presidio county, Tex. A glance at a map of Texas will show them that it is at the extreme southern end of the "Great American Desert," and outside of civilization. It rains there but little, sometimes not enough to lay the dust in two or three years at a time. There are but few inhabitants—a few ranch-men, mostly sheep-men—who employ Mexicans for herders and helpers. Its southern boundary is the Rio Grande river, the line between the United States and Mexico. There is no society. It is the home of the wolf, the wild-cat, and of the desert sand-storms, and will be of the first two, a hundred years, and of the sand-storms forever.

I do not think there is a Foley county. I have been in all parts of Texas, but do not remember Foley county; however, it is several years since I have been in some parts of the State, and it may have been made from one or two other counties. C. Klock.

Pearsall, Frio Co., Tex., Nov. 10, 1893.

A Mammoth Colony of Bees.

The largest colony of bees I ever heard of is down here in this grand old State of Virginia. It is located on the summit of the Blue Ridge Mountains, near the line between the counties of Page and Rappahannock, but I cannot say to which county they belong—this I know, however, they belong to Uncle Sam, as the land on which they are located is his, having never been taken up by any one. They are in what some suppose to be a cave, as their entrance is the crevice between two huge rocks. I am told that they have been there for 25 or 30 years, and it is stated by reliable authority that so strong do they work that a bushel measure could easily be filled in four or five minutes, if all the bees going in and out could be caught. Of course there is more than one queen in this colony. The home of this colony is known as "Stony Man," from the fact that it resembles a huge man.

Now, who can suggest some means by which this mammoth colony can be captured? What bee-keeper is there who has the grit to help me to make the attempt? Just think of the possibility of getting enough bees to stock a whole apiary, and "great tons of glue"—honey, I mean. As I write, in my imagination, I can see the precious sweets streaming down the mountain side. Come on, brethren, we'll have some fun.

The honey season here was tolerably good, and we have the promise of a good crop from fall flowers.

W. O. ROUDABUSH.

Charlottesville, Va., Sept. 25, 1893.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported	$73 90
Walter Harmer, Manistee, Mich	25
John M. Seiler, Chanhassen, Minn	30
Levi Moss, Clarendon Station, Ont	25
"Poganuc Apiary," Syracuse, Kans.	1 00
Total	$75 70

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us, as we use many more one-cent stamps than the two-cent kind.

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, in Washington, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

CHICAGO, ILLS., Nov. 9, 1893.—The receipts of comb honey in October were very heavy, ranging from amber to No. 1 white comb. Very little fancy finds its way to this market, still we received some last week We have had a good fall trade with good prices. Business is slacking off some, but we anticipate good trade again just before the holidays. We predict this to be the best season ever known for this market. We are selling extracted readily at prices somewhat lower than was expected at the beginning of the season, but sales are heavier. We quote: Fancy and No. 1 comb, 15c.; No. 2 and fancy amber, 13@14c.; dark, 10@12c. Extracted, 6@7c. Beeswax, 18@22c. J. A. L.

CHICAGO, ILL., Nov. 1.—Fancy white comb honey brings 15c. per lb. Grades not grading first-class are not selling at over 14c., as there has been quite a quantity of California honey received here, and is offered at 14c. The quality is superior to most of that we receive. Dark comb honey sells slowly at 12@13c. Extracted ranges from 5@7c., according to color, quality, flavor and style of package. The trade in honey has been large this season.
Beeswax, 22c. R. A. B. & Co.

ST. PAUL, MINN., Oct. 9.—Our market for comb honey is improving, and receipts since our last report have moved off fairly well, prices unchanged. We quote best white comb honey 14@15c. for California. Extracted lower under free offerings from the coast; we quote 5½@6c. for white or amber in five-gallon tins. S. & A.

NEW YORK, N. Y., Nov, 1.—Our market on white honey is weak and shows no activity. Supply is plenty, arrivals are large, and the demand is light. Hence prices have a downward tendency and concessions have to be made to effect sales. We quote: Fancy white, 1-lbs., 14c.; 2-lbs.,12c.; fair white, 1-lbs.,12c.; 2-lbs., 11c.; buckwheat is scarce—1-lbs., 11@12c.; 2-lbs., 10c. The market is well stocked with extracted of all kinds. We quote: White clover and basswood, 6@6½c.; California, 5½@6c.; Southern, 55@65c. per gallon.
Beeswax, 24@25c. H. B. & S.

BOSTON, MASS., Oct. 9.—We quote honey as selling fairly well. Best white at 15c. Extracted, 6@7c. Beeswax, 25@28c. B. & R.

Established in 1861

THE AMERICAN BEE JOURNAL

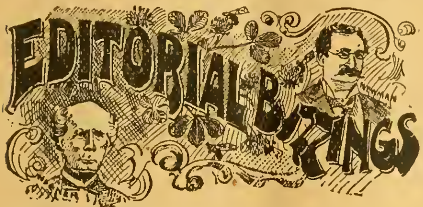
Oldest Bee-Paper in America

GEORGE W. YORK, Editor.

DEVOTED EXCLUSIVELY—— ——TO BEE-CULTURE.

Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., NOV. 30, 1893. NO. 22.



Thanksgiving Day with all its joys,
And hallowed memories, too,
Has come again to bless and cheer
The grateful and the true.
O, that from each this thought might go—
"Praise God from whom all blessings flow."

◆

Turkey will have its downfall and complete destruction to-day. We don't refer to Turkey in Europe or Asia, however.

◆

Religion and Politics are two realms of discussion and argument into which the AMERICAN BEE JOURNAL does not propose to enter. The reason for this must be quite apparent to any thinking reader of this paper. While we will adhere to the above statement, we would like to have it understood at the same time, that its editor is in favor of the highest morality of life, and is deeply interested in the kind of politics that shall most improve the condition of every individual in these United States. We may say further that we will always respect everybody's honest opinions, upon whatever subject, whether we can agree with them or not, and trust that all matters that seem dark and mysterious here, may be all made clear in the eternal hereafter.

Claremont, Calif., (care of Pomona College) will be Prof. A. J. Cook's permanent address after December 4, as he starts on that day for his future home beyond the Rockies. In a private letter he says: "I shall always be glad to hear from my friends." The Professor needn't worry, for his friends will "keep an eye on him," though he should go to the "uttermost parts of the earth."

We expect, from time to time, to have something from the Professor's able pen, which we know will be read with interest by our readers. The BEE JOURNAL desires to express the hope that health, happiness, and prosperity may ever be with Prof. Cook and his family in their new home.

◆

Thomas York Atchley, the little 2½-year-old that was named for Bro. Newman and us, we learn was stung by a bee a few weeks ago, for the first time, and his mother says "it did not hurt him much." We will watch the development of this young bee-keeper, who, we are informed, is appropriately called "the little editor," for short. We shall expect a good deal from him some day—he may really be at the head of the old AMERICAN BEE JOURNAL, who knows?

In a letter received from Mrs. Atchley, dated Nov. 18th, she writes that they were having another fine rain, which almost assures a good honey crop next year in Beeville, Tex. Her bees were gathering pollen and honey at the time she wrote, and she enclosed some blossoms of the flowers that the bees were working on then. Here in Chicago, at the same time, we were just getting a foretaste of a Northern winter. Such is the greatness of our country.

World's Fair Apiarian Awards.—Last week we gave a list of awards recommended in the apiarian department, but in copying them at the office of the Commission of Awards, our representative must have overlooked the following:

NEW YORK.

J. Van Deusen & Sons—Flat-bottom brood and surplus comb foundation.

W. T. Falconer Mfg. Co.—General line of bee-supplies.

IOWA.

Wm. Kimble—Extracted honey.

MINNESOTA.

State Bee-Keepers' Association—Honey display.

ONTARIO, CANADA.

R. McKnight—Linden extracted honey.

The following is a list of the foreign awards, recommended, as nearly as we could get them:

GREAT BRITAIN.

British Bee-Keepers' Association—Display of extracted honey.

RUSSIA.

Lomikin—Comb foundation and apiarian appliances.

Bolotnikov—Apiarian models, etc.

AUSTRALIA.

Hunter River Bee-Keepers' Association—Extracted honey.

ITALY.

Carlo Passerini—Extracted honey, confections and cordials.

Carlo Bonefede—Orange honey.

GREECE.

Committee of Olympia—Hymettus, Attic and Cerigo honey.

COSTA RICA.

Ricards Pfau—Five varieties of extracted, and one of comb honey.

HAYTI.

Two varieties of honey—white and amber.

GUATEMALA.

Mariano Gomes—Eight samples of extracted honey.

ARGENTINE REPUBLIC.

Machicate Hnos (Bros.)—Six varieties of honey.

VENEZUELA.

Government—Extracted honey.

Mrs. Sallie E. Sherman, of Salado, Tex., we regret to learn, has met with a sad bereavement in the death of her beloved father. The following paragraphs are taken from a kind letter we received from her a few days ago, and dated Nov. 17th:

Death has visited our little home since my return from Chicago. My father has crossed the river, and is now reunited with my mother and many other loved ones who have gone before. He shouted "Halleujah," and praised God all along through his last illness. He fell sweetly asleep at 8:20 a.m., on Nov. 7th, without a moan, sigh or struggle.

I have a little niece staying with me to go to school, otherwise I am entirely alone here. I love my home and friends in this place very much, and exceedingly regret the necessity of ever having to leave them. But such is life.

My father enjoyed very much hearing me tell of the wonders I saw at the World's Fair. In speaking of it a few days before his departure, he said that all the grandeur, people, etc., that I saw at the World's Fair, was only as a grain of sand upon the seashore compared to Heaven and eternity, and the glory to which he was going. He was so rejoiced to think that God was going to release him from his great suffering.

I spent three days on my return trip in Dallas, with my son.

In the biographical sketch of myself, on page 557, the 175 names on the bridge petition, were all ladies, and should have been so mentioned. The bridge, without approaches on each side, cost $3,500. The parenthesis in the name Orga(i)n, on page 555, was splendid. She is a music and art teacher.

I am so glad I went to Chicago. The trip will be an oasis in the desert of my life as long as I live. I am also glad I got home when I did. Father lived just three weeks and one night after my return.

MRS. S. E. SHERMAN.

We, with the many others, had the very great pleasure of meeting Mrs. Sherman at the late North American convention, and our readers will know her from reading her biographical sketch a few weeks ago. The BEE JOURNAL desires to unite with the bee-keeping friends in extending to Sister Sherman sincerest sympathy in this time of of her bereavement.

Michigan Experiments Again.—In reply to our editorial on page 617, Bro. Taylor writes thus:

BRO. YORK:—I do not suppose you intentionally misconstrue me, yet through some oversight you do so in your comments on page 617.

I did not say, as you affirm, that the *Review* employs me to write my reports. On the contrary, I said: "I have made no report, and cannot until the end of the year." I am employed by the *Review* to perform labor outside that which the State Board of Agriculture requires, and I have full authority, and even the thanks of the Board, for disseminating results more widely and quickly than it could without extra expense. Mr. Larrabee would have been made more than welcome to the same course, could he have found time to pursue it.

I am sure you will be glad to set this matter right in the AMERICAN BEE JOURNAL, as well as to give the *Review* the credit which common courtesy requires.

Very respectfully yours,
R. L. TAYLOR.
Lapeer, Mich., Nov. 16, 1893.

Well, Bro. Taylor, it seems that all the trouble comes from the use of the words "articles" and "reports." You say that the *Review* pays you for writing the "articles" describing your experimental work, and in the *Review's* advertisement, awhile ago, it said this:

"He [Mr. Taylor] will conduct a department in the *Review*, headed: 'Work in the Michigan Experimental Apiary,' in which will be given monthly *reports regarding the experiments* being conducted." (Italics are ours.)

You see the *Review* calls them your "reports," and you call them "articles." But in either case, we contend that anything written by you "regarding the experiments being conducted" in the Michigan Experiment Apiary, belong to any bee-paper that chooses to publish it, as it is paid for with public funds. Of course, your "Timely Topics" in the *Review* are quite a different thing, and if we copied them we certainly should give all "the credit which common courtesy requires," or even what an *un*-courtesy might demand. But when it comes to giving credit to another paper when we copy something from it of the nature of reports of work done at a State Experiment Apiary, why, we rather think we'll have to ask to be excused

As before stated, if we are wrong in this matter, we are willing to be set right and be fully forgiven, and will promise to be uncommonly courteous in our apologies. We want only what is rightfully ours.

The Apiarian Premiums, awarded at the St. Louis, Mo., Fair, in October, are as follows:

Best colony Italian bees in one-frame observatory hive—1st premium, $10, Thos. Johnson, Coon Rapids, Iowa; 2nd, $5, C. G. Jacobs, DeWitt, Iowa.

Best colony Cyprian bees in one-frame observatory hive—1st premium, $10, Wm. Kimble, DeWitt, Iowa; 2nd, $5, C. G. Jacobs.

Best colony Syrian bees in one-frame observatory hive—1st premium, $10, Geo. Leibrock & Sons, Mascoutah, Ills.; 2nd, $5, Thos. Johnson.

Best colony Albino bees in one-frame observatory hive—1st premium, $10, Thos. Johnson; 2nd, $5, Wm. Kimble.

Best colony black bees in one-frame observatory hive—1st premium, $10, Geo. Leibrock & Sons; 2nd, $5, C. G. Jacobs.

Best collection of queen-bees, alive—1st premium, $5, Wm. Kimble; 2nd, $2, George Leibrock & Sons.

Best and largest display of comb honey, quality and manner of putting up for market to be considered—1st premium, $20, Wm. Kimble; 2nd, $10, Geo. Leibrock & Sons.

Best and largest display of extracted honey, quality and manner of putting up for market to be considered—1st premium, $20, Wm. Kimble; 2nd, $10, Geo. Leibrock & Sons.

Best 10 pounds of beeswax—1st premium, $5, C. G. Jacobs; 2nd, $3, Wm. Kimble.

Best frame of comb honey—1st premium, $5, C. G. Jacobs; 2nd, $3, Geo. Leibrock & Sons.

Best and largest display of apiarian implements—1st premium, large silver medal and $10, Geo. Leibrock & Sons; 2nd, $5, Wm. Kimble.

Best comb foundation machine—1st premium, $5, Geo. Leibrock & Sons; 2nd, $3, Wm. Kimble.

Best comb foundation made on the grounds—1st premium, $5, Geo. Leibrock & Sons; 2nd, $2, Wm. Kimble.

Cornstalks for Protection. — A writer in the *Country Gentleman* once said that after studying the winter problem for some time, he concluded that if the hive was surrounded with cornstalks the bees would have sufficient protection, and get plenty of air. He placed cornstalks around the hive, tying them at the top, so that when finished it looked as if he had taken one of the shocks of stalks from the field and set it up in his yard. In the spring of 1891 the bees were in splendid condition, but that was a mild winter, and he did not consider it a fair test. In the fall of 1891 he fixed them in the same way; the following winter was not so mild. When he took off the stalks, in the spring, the bees seemed as strong and vigorous as at any time during the summer.

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us, as we use many more one-cent stamps than the two-cent kind.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Several Questions Answered.

Mr. W. E. Dean, of Tunnelton, W. Va., sent us several questions, and we publish them below, following each with an answer:

ORIGIN OF CARNIOLAN BEES.

Where do Carniolan bees come from? and what are their distinguishing characteristics?

ANSWER.—Carniolan bees come from Carniola, a duchy in Austria, near the Adriatic Sea, but on the east slope of the mountains. The difficulty of distinguishing them from common blacks, leads Dadant to say in the "Revised Langstroth," "In spite of the prolificness and general good reputation of this race, we did not attempt to propagate it, owing to the difficulty of detecting their mating with the common bees, since they are almost alike in color." Root says in his "A B C of Bee-Culture:" "As stated, they resemble blacks, and might easily be mistaken for them, but there is a difference. They are larger, and their abdomens are more of a bluish cast, the fuzzy rings being very distinct." They have the reputation of being the best bees as to disposition, and the worst as to swarming.

YELLOW-BANDED, SHINY BEES.

Some time ago I got a colony of Italian bees with an untested queen. I now have bees in the colony with three broad yellow bands on the upper part of the body, but the lower part of the body is pure black. The light rings on common bees, and the Italians that were purchased, are absent on these. Is it because these bees are young, that their bodies are shiny black, except the three broad yellow bands, or are they hybrids?

ANSWER.—Probably neither, if they have the three broad, yellow bands. If all the workers of a queen show the three yellow bands, she is considered pure. The shiny black appearance of bees is because their plumage has been removed, so that the shiny black appearance is an indication of age rather than of youth. Bees that have been doing a lively business at robbing are likely to have the shiny black appearance, excepting, of course, where yellow bands show.

THE FIVE-BANDED ITALIANS.

Are 5-banded Italians imported, or are they an American production?

ANSWER.—We believe 5-banded Italians are an American product.

BUILDING CELLS ON TOP OF FRAMES.

Though I have a super with section-boxes in which the bees are making comb, yet they persist in making cells on the top of the frames, and connecting the frames to the side of the hive. Is it best to open the hive every day or two, and cut this extra comb away?

ANSWER.—It would be a very serious matter to open a hive every day or two to cut out burr-combs, and we would not advise it. The prevention of burr-combs has been much discussed. Heddon's slat honey-board placed between the brood-chamber and the super is a great help, although complaint has been made of failure in some cases. Now-a-days there seems a growing preference for thick top-bars and small bee-spaces. Some claim success with top-bars ⅝ of an inch to an inch in thickness, without reference to the bee-space. Others say they succeed with thinner top-bars, by merely having the space between the top-bar and the super a shade less than ¼ of an inch. With top-bars ⅞-inch thick, and bee-space scant ¼ of an inch, you will not need to cut out burr-combs every day or two.

BLACKBERRY BLOSSOMS FOR BEES.

Do blackberry blossoms produce anything for bees?

ANSWER.—Blackberry and strawberry are counted among honey-plants, although in our own observation we never saw bees pay much attention to them. Raspberry, however, is a fine honey-plant.

BEE-WILLOW AS A HONEY-PLANT.

Is the bee-willow valuable as a honey-plant? It is about the first thing that bees work on here in the spring.

ANSWER.—You have yourself given the answer to the question by saying, "It is about the first thing bees work on here in the spring." The gathering of honey at that time, and perhaps still more the gathering of pollen is a matter of the greatest importance, encouraging the rearing of brood. Just what you mean by "bee" willow we do not know, although we believe all the willows are important.

Fumigating Combs Containing Pollen.

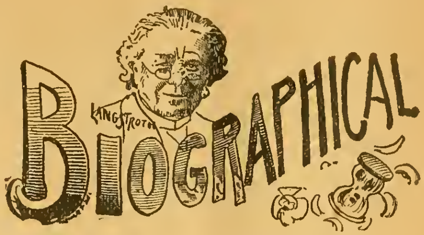
Can combs containing pollen but no honey be fumigated so as to be entirely safe? I. W. Beckwith.
Ft. Lupton, Colo.

Answer.—Yes, honey, or no honey, enough fumigation with sulphur will finish up all the worms that are in the combs. But remember that enough may mean a good deal. While a very little sulphur may kill all the little fellows, the tough old fellows an inch long will only laugh at a slight smoking. You must give it to them strong and long. Then look the combs over in a day or two, and see whether they have succumbed. If they look as lively as ever, give them another and a stronger dose.

But as the weather gets cool, you will find that worms are not very rapid in their work of destruction. They need warm weather to work at their best. When it gets cold enough they will stop work altogether, and if there is no honey in the combs you can do nothing better than to leave them out over winter, and the freezing will do the business just as surely as fumigation, and with less trouble.

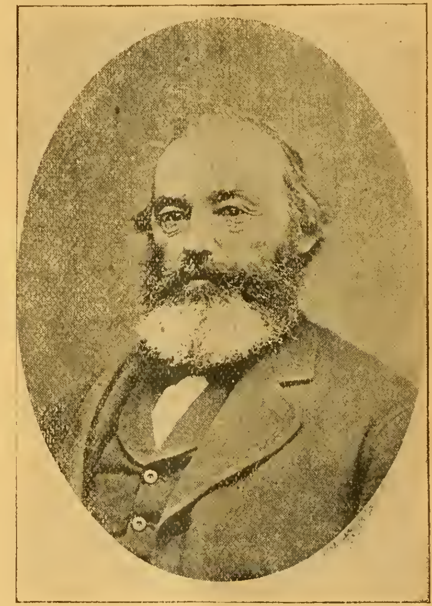
Remember that one way to give "aid and comfort" to the enemy is to have the combs close together. Hang them an inch or two apart. Not an inch or two from center to center, but with a space of an inch or two between the combs.

Your Winter Reading—have you got all the best bee-books on hand, ready for the long winter evenings that are now fast coming on? If not, why not get one or more of the standard apiarian books when renewing your subscription for another year? On page 669, we publish a book clubbing list which will save you money if you take advantage of its liberal offers. Then, on page 7 03 you will see that by sending us only a few new subscribers for the Bee Journal, you can get some good books as premiums; and, besides, the new subscribers can at the same time have good books free. Just turn to pages 669 and 703, and see what we offer in the line of the choicest bee-literature. This is *your* opportunity.



No. 58.—D. A. Pike.

The subject of our sketch this week, Mr. D. A. Pike, lived in Smithsburg, Md., and was, we believe, the originator of what are known as the Albino bees. He died on April 21, 1893, leaving a widow, and one son 16 years old.



D. A. PIKE.

Mr. Pike was a prominent member of the Lutheran church, and for many years an officer of the same. In politics he was a Democrat.

In speaking of his death, Mrs. Pike writes that it came very unexpectedly—the cause being heart trouble, which afflicted him for about 30 years. On the day he died, he had eaten dinner at 11:30 a.m., then lighted the bee-smoker and looked over his bees. Then he came into the house and told his wife that he had another hard spell with his heart. He went up-stairs and took some medicine which had always relieved him. He then sat in a chair and died. At 1:30 p.m. he was a corpse.

Mr. Pike had just entered his 70th year, having been born in Franklin county, Pa., on Feb. 24, 1824. He was a great lover of bees, and delighted in working with them, which he did for upwards of 25 years.

It seems that Mr. Pike took the greatest interest in the Albino bees, which variety he claims to have been the first to breed. In his circular for 1891-92, in speaking of these bees, he says that their habits are about the same as the Italian; their color differing from the Italian by having white or ivory-colored rings around the body, giving them a beautiful silvery appearance.

In the same circular he gives the "history of the Albino bee," in the following words:

> Late in the fall of 1873 I reared a queen from a colony of Italian bees, and allowed her to remain with the colony until the spring of 1874, when I noticed that one-half of her working progeny was mildly marked Italian bees, the other half being marked in the following manner:
>
> About the eyes they approach nearer a purple than the Italian. Beginning at the waist they first have three distinct yellow bands, then three distinct white bands. The white is pure, not muddy or dirty, the wings are finer, and of a bright silvery color, and their shoulders and under part of the abdomen are very thickly coated with white hair.
>
> As to their breeding, I can say the queens are very prolific. As soon as I noticed them I began to breed them out, using the greatest care so as to get them pure, if possible. I removed them from my own colonies to a place where they were not likely to come in contact with other bees. I kept them there until they reproduced themselves, with all the markings of the pure Albino, watching them very closely, and examining them carefully until I no longer found any Italian bees among them, or any bees bearing any other marks than those of the Albino. Then I considered that I had them in their purity, and that they would not breed back to the Italian bees.
>
> I have since tested them, and have placed them in competition with the Italian and Palestine bees, all having the same pasturage, and find that they gather more honey, are more gentle to handle, and stick closer to the combs than any other bees. I have given them a severe test in order that I might feel safe in guaranteeing them to the public, and in order to see whether they were a distinct race or not. My observations have led me to the results mentioned, and I do not hesitate to give them the first rank in the bee-world. The queens and workers are the handsomest bees I have ever seen.
>
> D. A. PIKE.

We have given the foregoing paragraphs not as an advertisement for the Albino bees, but as a matter of history. It would be natural that the originator should see in them many points of excellence, and no doubt they are equal, if not superior, to some of the well-known bees of to-day.

For the photograph from which the picture of Mr. Pike shown herewith, was taken, and for the short biographical sketch, we are indebted to Mr. Thos. Johnson, of Iowa.

Have You Tried to get a new subscriber for the BEE JOURNAL this fall? We offer to throw in the balance of this year free to new subscribers for 1894, besides their choice of one of the books offered to them on page 703 of this JOURNAL. Then we also give a premium to a present subscriber who will send in new ones. It seems to us that our liberal offers this fall ought induce every one of our readers to aid in doubling the circulation of the BEE JOURNAL within six months. Why not help do this, and then see what a grand journal we can furnish to everybody when once the increased number of readers is secured? If each present reader would send only one new subscriber besides his or her own renewal before Dec. 1st, the thing would be done. Will *you* do it, reader?

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

RANDOM STINGS

FROM THE STINGER.

Now, there's Editor Leahy,
Who is quite beeahy.
In a "Progressive" way;
With a bee "in the ear"—
A little too near—
Yet Leahy is happy and gay.

Bellamy has been "looking backward" at the joys and sorrows of bicycling, and he asks *Gleanings*, who has been a great exponent of the fad, to tell about the sorrows of bicycling—"such as head wind, sudden rain making wet roads, fright to horses, repairing, causing hump-backs," etc. (See page 534 of the BEE JOURNAL.) The Stinger will say that Bellamy is right for once; but there is no Utopia for the man who rides a bike, be he bee-keeper or not.

Ernest, you may paw the air
While we ride to the church fair.
That *we* will surely get there
Is because our steed's a mare.

The Stinger does not hold himself responsible for the following dialogue, which took place between a father and son in Ohio not long since:

Son—"What is that on that bicycle, father?"

Father—"An apiarist, my boy."

Son—"Do all apes ride that way."

Father—"No; that is not the kind that monkeys in trees, as you seem to imagine, but one of those that monkeys with bees and bicycles."

Here is a fable that is supposed to have got lost when Æsop sent his copy to the printer many years ago. It is here given for the first time:

A Proud Hen walked into an Apiary one day, and met a Duck that was eating Drones, as they came out of a Bee-Hive.

The Proud Hen asked the Duck what she was doing, and the latter said, "I am eating Drones."

"Are they nice and sweet?" interrogated the Proud Hen, who prided herself on being an Epicure.

"You bet," replied the Duck, who never made any pretensions to being a Fine Liver.

The Proud Hen then walked up to a Hive and grabbed the first Bee that came in sight. The Bee stung the Proud Hen, who, to revenge herself on the Bee-Hive, scratched upon the entrance of the Hive. A lot of Bees came out; she thought she would now have a Grand Feast. But, instead, the Bees piled upon her and stung her full sore. The Proud Hen ran off with her head under her wing, to where the Duck was standing on one foot watching the Silly, though Proud, Hen. She was going to give the Duck "fits" for telling her to eat Drones.

"Why did you say Drones were good to eat?" demanded the Proud Hen in a sharp voice. "You knew that they were Hot and Peppery, you mean Old Thing!"

"Because they are good to eat," meekly replied the Duck.

"They are not, and I came near being killed by the Drones, for taking your advice," retorted the Proud Hen.

"You did not try to find the Drones, as I do," said the Duck, "but you were trying to eat the Bees, who have Sharp Stings, and are too Hot and Peppery to eat, as you seem to have found out to your sorrow. I thought you knew the difference between Drones and Bees. The next time you will not be so hasty to satisfy your greed before you learn just what you are going to dine upon."

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Dec. 7.—Carolina, at Charlotte, N. C.
A. L. Beach, Sec., Steel Creek, N. C.

Dec. 12, 13.—Illinois State, at Springfield, Ills.
Jas. A. Stone, Sec., Bradfordton, Ills.

Dec. 13, 14.—Eastern Iowa, at Delmar, Iowa.
Frank Coverdale, Sec., Walton, Iowa.

Dec. 19, 20.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Dec. 28, 29.—Kansas, at Ottawa, Kans.
J. R. Barnhard, Sec., Ottawa, Kans.
1894.
Jan. 24, 25.—Vermont, at Burlington, Vt.
H. W. Scott, Sec., Barre, Vt.

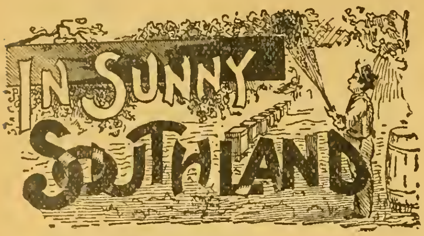
☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRES.—Emerson T. Abbott.....St. Joseph, Mo.
VICE-PRES.—O. L. Hershiser....Buffalo, N. Y.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.
147 South Western Avenue.



CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

To Stop Robbing When Well Started.

At one time we undertook to transfer outside of the bee-wagon, and oh, my, the robbers! Well, something bad to be done at once, and we closed all the hives being robbed, and when the robber bees would collect in great knots on the hives, we threw some water on them and wet them all over, and you ought to see how soon it stopped them.

JENNIE ATCHLEY.

More About Skunks, Etc.

Well, we are always "larnin'" something. When we first began to put out poisoned hen's-eggs, we were at first puzzled to know why we could not poison the skunks after they had eaten all the poisoned eggs. Well, I will tell you just how we were fooled. We would make a little hole in the large end of the eggs and drop in the poison. Well, sir, we soon found that there was a vacancy, or the eggs were hollow at the large end, and we failed to break the film, and the poison lay between the shell and film, and the skunk did not get it.

So we put out another dozen eggs, and put the poison in at the small end, and we were sure that it went clear into the egg. The result was, we killed six or seven "cats" the first night; and soon had them all killed that visited our apiary, as I have noticed no signs of them for several days.

It has been raining now for about 24 hours, and still raining, which is the first rain of any consequence since last May, in this country. These fine rains now mean honey next spring. Water will now be plenty, and the grass green, and early in January the bees will begin to hum on chaperal. The long faces of the farmers and stockmen are now changed, as well as those of the bee-keepers, and pleasant smiles are to be met now at every gathering.

The thermometer now (Nov. 13th) registers about 50° above zero, and it is raining, so you see we have nice, warm weather yet.

JENNIE ATCHLEY.

A Portable Transferring House.

Oh, yes; I forgot to tell you what a nice, portable transferring house we have. As before stated, we have our wagon arranged so that we have a door to open in its rear end, and it is fixed bee-tight with wire-cloth, and I tell you it is such a nice, handy place to transfer in. When we arrive at the place where bees are to be transferred, we unload our empty hives, and do all our transferring right in the wagon, and when we get through we load up our box-hives right into the bee-tight wagon, and drive home and unload the box-hives and transfer our bees. The work is so well done that we seldom have any robbers even at this season of the year.

Then, such a wagon makes such a nice, handy extracting-house to carry from apiary to apiary, and always ready, and the honey ready loaded when we wish to start home. I think now that we will use the wagon for an extracting or honey-house in all our out-yards, and I tell you it is the handiest thing out, to always have a good, tight bee-house with you all the time.

JENNIE ATCHLEY.

A Queen-Introducing Experience.

Before I ever read a word on bee-keeping, I actually saw an advertisement of our worthy county judge offering Italian queens for sale. I immediately sent an order to him for a fine tested queen, and as I knew nothing of transporting queens in the mails, my anxieties were intense, which occasioned the writing of two or three letters to Judge Terrel, inquiring into his method of shipping queens, and he, to put to rest my fears of her starving in the mails, wrote me the following:

"Queens seldom starve to death in transit. More queens are lost while introducing them than in the mails."

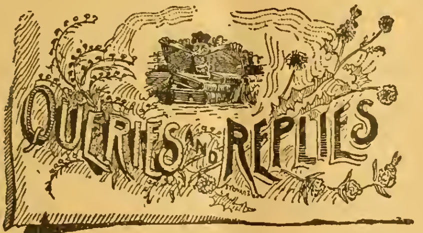
I did not at first understand what he meant by "introducing." I knew that to carry the Italian queen up to the hive of "negroly" looking black bees, and just give her an introduction to them, and let her walk in, would be an open-handed act of insanity. At the same time I knew if I should get her killed, the effect of it would send me to the lunatic asylum.

Under these distressing circumstances I put to work my inventive genius, and the result was, that after losing a week's sleep over the matter, I struck the following plan, which was a decided success:

At that time my apiary consisted of one log gum with a knot-hole for an entrance. I split the hive open and killed the black queen, and removed the combs to a place where the bees could not find any of it. This proceeding left the bees hopelessly queenless, so far as they knew. I fastened the cage containing the Italian queen to a branch of a tree, and just let 'em sail around in the air until they began to cluster on the cage, and then I released the queen, and she was all right in an hour or so. I fastened the combs in another log gum, and let the bees run in with the fine queen, and all worked lovely.

When I have an extra fine queen to introduce, the above is the way I do it. This is an infallible method, if there are no other bees near the hive you are manipulating. C. B. BANKSTON.

Chriesman, Texas.



How to Get Bees to Work in the Sections.

Query 899.—Can you give a simple but effective way to get bees to work in the sections? I had some very strong colonies, but they seemed determined to put all their honey in the brood-chamber.—Novice.

Put in either starters or full sheets of foundation.—MRS. L. HARRISON.

Have a full brood-chamber, and if necessary contract.—A. J. COOK.

I have never needed anything more than a bait section.—C. C. MILLER.

Contract the brood-chamber until there is no room to put honey in it.—A. B. MASON.

Yes, if the sections are properly adjusted. Make the flowers "give down."—EUGENE SECOR.

Use "bait" sections, and contract the brood-chamber to suit the prolificness of the queen.—G. M. DOOLITTLE.

Reduce the number of frames in the brood-chamber so that there will be no room for honey.—P. H. ELWOOD.

Put in partly-filled combs from some colony that has begun already to store in the sections.—J. H. LARRABEE.

A few partly-filled sections make a good bait, but even then they generally fill everything below first.—MRS. J. N. HEATER.

A few partially-filled sections placed in the center of the empty ones will usually put the bees to work.—J. M. HAMBAUGH.

A change of queen is one good way. I have been successful by using partly-filled sections in the center of the super.—H. D. CUTTING.

Put sections—a few—into the brood-nest, and when the bees begin work in them move them up into the section-case, bees and all.—M. MAHIN.

There is no trouble to get them to work if starters or full sheets of foundation are used; providing the colony is strong enough, and honey is to be had.—S. I. FREEBORN.

I never had any trouble of that kind. I use 8-frame hives, and sections with foundation in them, and have no trouble about getting bees to work in the supers.—EMERSON T. ABBOTT.

Bait them by a little piece of comb. If your super is tainted, wash it with a solution of peppermint and water. Of course you use foundation, and keep it where mice and other "varmin" cannot get at it.—WILL M. BARNUM.

I am not a comb-honey man, but I could get the bees to work in the sections. Fill the center section with young brood—the bees will work around the brood, but would be likely to put pollen in the first section on both sides of the brood.—E. FRANCE.

Yes, a good honey-flow, a strong colony, and sufficient space to get into the sections. If the upper parts of the brood-combs are already sealed solid with honey, uncapping it will help greatly. If that does not accomplish it, invert the brood-frames or hives.—C. H. DIBBERN.

Get a few sections that are already under way, and put them, with the adhering bees, in the super of the idle colony. If strong colonies will not work in the sections when the hives are properly arranged, and honey is coming in freely, I would get another strain of bees. Probably you give your bees too much room in the brood-chamber.—JAS. A. GREEN.

I have been called a "crank" on the "close-spacing" idea; but I say now, and confidently, too, that by "close-spacing"—that is, spacing just "bee-space" apart—there is no trouble in getting the sections occupied and filled; that is, if there is nectar being gathered with which to fill them.—J. E. POND.

You can usually get them to go into the sections by placing some sections there that are worked out and partially filled. But now and then you meet with a colony with so much "determined" cussedness of disposition that they positively refuse to work in the sections at all—use the extractor in such cases.—J. P. H. BROWN.

About the best remedy I know of is to pull the heads off of the queens that make stingy bees, and breed from those that are more liberal, and that will put the honey above. But I do not care for bees that will starve the brood-nest and put it all above. It is not always the bees that are at fault, as the season or the judgment of the apiarist as to their being strong enough, may be at fault sometimes.—MRS. JENNIE ATCHLEY.

Yes. Put the sections over the brood-chamber of the colonies as soon as the hives are crowded with bees, with free access for the bees from the hive to the sections, and set them—the colonies—in a locality where there are plenty of flowers yielding plenty of nectar that the bees can reach. This never fails with my bees; if it does with yours, they are probably cursed with too much Italian blood, or with too much fine breeding.—R. L. TAYLOR.

The trouble I have is to keep the bees from robbing themselves by storing nearly all their stores in the surplus department. If you have not *got the bees stopped out of the section-cases*, and they refuse to work in them, you may set it down as *dead sure* there is not a sufficient flow of nectar to induce the bees to start new work. No doubt many *novices* watch and wonder why bees do not enter and work in the surplus cases at a time when there is little or no nectar to be found.—G. W. DEMAREE.

Great Premiums on page 703 !

Convention Proceedings

Report of the North American Bee-Keepers' Convention.

Reported for the "American Bee Journal"
BY R. F. HOLTERMANN.

(Continued from page 661.)

Mr. Benton then read an essay by Mr. Samuel Simmins, of Seaford, England, as follows:

Swarming, and the Prevention of Swarms.

The causes of swarming can be traced to several sources. First of all, we must consider it as a natural instinct of preservation whereby young queens are secured, new homes are formed, and the bees fulfil the supreme command, "Go forth, increase and replenish the earth."

Next, the conditions of locality, the honey seasons and resources have much to do with the act of swarming.

But when we come to the action of man in relation to the control of swarming, we find the foremost reason why bees are allowed to carry out to the full this natural disposition of theirs, is negligence. Let them have irregular brood-combs with plenty of pop-holes, and queen-cells are constructed where otherwise none would have been found. Then allow the brood-nest to be crowded, not necessarily with bees or brood, with too large a proportion of the combs choked with honey, and pollen in particular, then the queen is soon conducted to a new site, and another colony is established. In this connection, too, the negligent bee-keeper is sure to be careless as to the removal of his aged queens, and he suffers in more than one way in consequence.

On the other hand, we have a more careful and far-seeing class of bee-keepers, and what is it they do towards

PREVENTION OF SWARMING?

The usual process where comb honey is being worked for, is to put on the sections before the swarming condition is reached, thus giving room in advance of the bees' requirements; but this is only partially successful; the brood-nest becomes crowded with both brood and pollen, and a great many swarms issue. Therefore, as a farther aid to prevention while working for

COMB HONEY,

will the bee-keeper be compelled to relieve the brood-chamber with the extractor? Oh, no, that will not remove the pollen; but by occasionally withdrawing the two outer combs, and at the same time inserting near the center two frames with guides only. Mind, these two frames are not to have empty combs or fountation, or they may be choked up at once to the exclusion of the queen.

PREVENTION WITH EXTRACTED HONEY

has generally been a far more simple matter where the bee-keeper will only keep on hand plenty of empty combs and extra sets of hive-chambers that can be tiered up freely when the good time comes. The brood-nest is not cramped, and the bees are never allowed to have all the combs completely capped before the honey extractor relieves the surplus combs of their accumulating stores.

But, after all, prevention is not always secured with such an unlimited space. For one reason most bee-keepers keep queens until they are too old, and worse than that, such as are reared at quite the wrong time of year to insure the best results.

Young queens will top all that has been urged so far as aids to prevention of swarming, though as a matter of fact such queens will always be found at the head of far stronger and more capable colonies than any with ordinary swarming queens.

The young queens should be reared in nuclei towards the latter part of the season, by the side of the respective colonies, and united to them before the general clearing up, or where you expect a later harvest, shortly before that occurs. Try it once, you follow it always.

But above all, and in connection with the last named condition, the

FOREMOST METHOD OF PREVENTION

it has been my lot to discover, is the placing of an empty chamber *under* the usual brood-chamber before the latter becomes crowded. The frames of this lower chamber have ¼ inch guides only. The surplus is worked as usual above the brood-chamber, when no combs are completed below, even if left without attention the whole season, provided the former receive due care. There are no traps and no constant shifting of heavy weights; the bees feel that their brood-combs are never complete, and the natural desire for swarming is lost.

Before the plan is tried, the frequent query is, "How can I possibly get the bees to work in the surplus chamber with so much room below?" I have never found the least difficulty. When working for extracted honey, with plenty of empty combs above, there can be no difficulty. And when is there anything in the way of bees going up into the sections? Only when you do not use full sheets of foundation in those sections; and who in these days can afford to use anything less than full sheets? If you use only

STARTERS IN THE SECTIONS

then the combs are finished off with drone-cells in many cases, with its coarse, irregular cappings. The drone-comb there has been the only inducement for the queens to go up and breed among the nice combs of honey; then some of you felt that you must use the queen-excluder zinc, with its added expense and inconvenience.

Use nothing but full sheets of foundation in the sections; give empty frames below the brood-chamber, and you will find perforated zinc one of the biggest shams ever put into a bee-hive.

NATURAL VS. ARTIFICIAL SWARMING.

We next come to the question "whether it is advisable to prevent natural swarming in all cases." Decidedly, yes. It is opposed to all the first principles of scientific breeding, and in northern latitudes we do not want our queens reared at the usual swarming time, as already shown. We want at all times to keep our bees so well in hand that we can make our increase at the time it is going to interfere the least with the main work of honey gathering; and we just want every single queen reared and mated by selection.

In southern latitudes I should still want to control the swarming impulse, but whereas in the North but limited increase is desirable, in tropical and semi-tropical climates, the highest results are only to be obtained by swarming (dividing).

It is impossible in the latter case to keep up a sufficiently large and continued working population to secure the enormous amount of honey generally abounding throughout a lengthened season, without a judicious process of increasing, which shall do away with the pollen-bound combs, while allowing the queen unlimited space in newly-built cells.

Old queens, with much drone-comb built in consequence, and an excess of pollen, have much to do with the meagre results reported from some of the lands enjoying almost continuous sunshine; and where a boundless wealth of bloom would lead us to expect a harvest of ten times the quantity.

In conclusion, I would repeat the necessity of so working, without at all disturbing the economy of the hive, that the desire to swarm does not exist; making increase when desirable by division as the most profitable method to follow. Use only young queens reared in autumn. Allow plenty of room under the brood-nest, which being also a cause of better ventilation, permits of more continuous work being carried on, and at the same time does away with continual shifting of heavy weights, as well as useless clap-traps.

SAMUEL SIMMINS.

Mr. Simmins essay was then discussed as follows:

Mr. Boardman—Some years ago I wanted to prevent swarming, now I do not. When I wish to prevent swarming, I shake the bees out of the hive upon empty combs. If I want no increase, after the surplus honey has been taken, I return the bees to the colony with the young queen.

At this stage Mrs. Mason entered, and calling for Dr. Mason, said that Mr. Newman was very ill in the outer hall. Dr. and Mrs. Mason, Dr. Besse, C. E. Parks, and Mr. and Mrs. York went out to care for Mr. Newman.

In a few minutes Dr. Mason returned, and said that Mr. Newman was feeling better. On motion of the Doctor, it was voted that the association tender Mr. Newman their heartfelt sympathy in his affliction, and wish him a speedy return to health.

Swarming and the Production of Comb Honey.

This question was then asked: "For the best results in comb honey, is it desirable to prevent swarming?" Thirty-one favored prevention, and 42 did not.

Byron Walker—I think the season has much to do with it, whether it is best to prevent swarming. If the season is short, I want to prevent swarming.

Mr. Boardman—I have had a hive on a scale, and it gained about 5 pounds per day. After swarming, another gained 10, 9 and 8 pounds. I think they were equal in strength.

R. C. Aikin—I have favored for years a system to control swarming. In a term of five years I would compete with the best man in the convention, and he practicing swarming and I non-swarming, and I would secure better results than he would. There was a great deal of deception in the idea of bees gathering more honey after swarming.

Extracted Honey Production and Swarming.

"Is it desirable to prevent swarming in the production of extracted honey?" In reply to this question, 49 favored non-swarming, and 2 favored swarming.

Mr. Crane—Circumstances very much alter cases. The length of the season made the difference. He had several hundred colonies—had four yards with only two to manage them. This season was short, and to divide forces was not advisable. The largest colonies generally gave the best result.

Mr. Kretchmer asked Mr. Boardman if the additional hives and labor would be paid for in increased honey.

Mr. Boardman — I can comprehend conditions under which such would be the case. In reply to another question, he said that he put his swarms on the old stand.

Byron Walker — I have had 100 pounds of comb honey per colony, and have had 3,000 pounds of comb honey from a late flow. Under these circumstances swarms pay me.

Mr. Alpaugh—In criticism of Mr. Simmins' essay, I do not believe in giving an empty hive under the brood-chamber. I tried it extensively one season, but the bees did not accept of it in many cases. I would sooner put the empty hive above, and tier up as required. This system will largely prevent swarming. For comb honey I like new swarns. I hive them on starters, contracting the brood-chamber, making it half the size. I space the frames very closely. If sections are on the parent colony, I remove them at once to the new, with queen-excluders between. If the old hive contains no partly-finished sections, give the new swarm new sections at the time of swarming, and put a slatted honey-board between; but about this latter I am not very particular. I have had 100 pounds of comb honey from a swarm, and 100 pounds of extracted from the old colony. If you hive on full sheets, you run the risk of bees re-swarming. If on starters, you will not have re-swarming.

Increasing by Dividing Colonies.

Pres. Miller, in response to a wish expressed by Mr. A. I. Root, asked, "How many would, if they wanted to increase 10 colonies to 100 as rapidly as possible without feeding, do it by dividing (artificial swarming)?" Sixty-three voted for this method, and none against it.

Mr. Boardman — This question does not consider the question from a financial standpoint.

The convention then adjourned until 7:30 p.m.

SECOND DAY—Evening Session.

The convention was called to order by Pres. Miller, at 7:30 o'clock, when he read the following essay by Chas. F. Muth, of Cincinnati, O., entitled,

Grading of Honey—Should There be Any Change in the Ruling Adopted at the Last Convention?

The arrivals of shipments of honey in good condition are many times of the same importance as the production of a good crop. After the industrious bee-keeper has put to the test all his energies for nine or ten months of the year, in order to get his bees in proper condition by the time that his season begins, and after a good crop has been harvested, the honey is generally sold to dealers in large cities. The safe arrival of his honey is now the first and greatest factor in the success of his enterprise.

His disappointment would be great upon learning that his honey had arrived in a damaged condition. He would know at once, or imagine, that the profit of his year's labor is lost. He has no idea of the vexation and disappointment caused to the dealer who also loses money and valuable time, and, if of a generous disposition, often loses more than he can afford to, while, on the other hand human nature inclines the shipper to think that he is treated unfairly by the other party. An unpleasant feeling is created between parties who should be friends, and often would be the best of friends if they knew each other intimately.

Since a safe arrival is one of the preliminaries necessary for the success in our pursuit, and of no minor importance than grading, you will please allow this introduction.

The sale of all goods is promoted by their inviting appearance. Special care must be taken in the preparation for market of comb honey because—a fancy article. All should be put up in neat glass cases, with at least one glass front. Cases should contain no more than 20 to 25 pounds net, while smaller cases are often preferable. Each case should be filled not only with combs of the same color, but also of the same quality, and the front row of each case should always be a fair sample of its contents. The sections must stand solid in their cases, so that their extensions are a fair protection for the combs they contain.

I speak from my standpoint as a dealer in the Cincinnati market, where glassed cases are most popular. I am not prejudiced to the packing of comb honey in neat paper cartons, which has nothing against it in neatness of appearance and safety in transit.

When small shipments are made, it is well that the shipping-cases be crated, *i. e.*, that a number of cases be put in crates of such shape as will not be apt to tumble over, and which are not too heavy for one man to handle. The fronts of cases should always be exposed to view, and the crates marked "Comb Honey—Handle with Care," in plain letters.

When shipments of carloads are made, care should be taken in placing each case solid in the car. No vacant spaces should be permitted inside of the car, so as to prevent the sliding of the cases to and fro in transit. All cases should be placed so that their combs stand lengthwise of the cars. We can haul comb honey safely on a rough transfer wagon, over roughly-bouldered streets, while the dropping of a case on a table from a heighth of six inches only, is apt to break every comb.

Shipments of extracted honey require the same care in proportion as those of comb honey. Since, perhaps, 75 per cent. or more of all extracted honey produced, is sold to manufacturers, good, stout vessels are most essential for shipments. Barrels and half barrels are most desirable for *our* trade, but 60-pound tin cans, two cans in a crate, are very acceptable. In fact, any vessel will answer the purpose, which is clean and safe in transit.

No barrels require waxing or paraffining, but all must be made tight when dry, then cleaned out and filled with honey. Especially is this the case with second-hand barrels. They must be made perfectly tight by having their hoops driven when dry, in order to prevent disappointment.

We had several times an unpleasant correspondence with parties who had soaked their barrels in water in order to make them tight, and who did not know that honey would absorb every drop of moisture from the staves, gradually but surely, and the barrels become more leaky every day as the absorption of moisture would progress. By the time they had arrived at Cincinnati, the barrels were only partly full, and some were entirely empty.

I have written many letters on this subject, have spoken about it at bee-keepers' meetings, and through the bee-journals, and whenever occasion would offer, and I am surprised that so many of our friends, at this day, don't see the point yet. A general knowledge of the above would prevent sore disappointments, unpleasant correspondence, and hard feelings between producers and dealers, whose interests require that they should be friends.

The grading of comb honey as adopted by the ruling of the last convention is, perhaps, as good as can be made, and may stand. However, it amounts to nothing in the transaction of business, and is of no practical value; but it assists in giving employment to our theorists.

I have no use for the word "Fancy" in relation to dark honey. The fact of comb honey being dark excludes all "Fancy."

We prefer to call honey by its proper names, such as white clover, alfalfa, basswood, mangrove, sage, golden-rod, aster, holly honey, etc. These, and other distinct varieties, we call by their proper names, and make prices according to their qualities. Others we class as dark honeys. Buckwheat belongs to the latter, of course, but being of a distinct variety, we call it "buckwheat honey." By these means we have succeeded in convincing our neighbors that the flavor and color of honey is determinded by the source from which it was derived. The result is that none of our customers suspicion the purity of our honey when a strange flavor strikes their palates. Sugar syrup fed to bees tastes unmistakably like sugar syrup honey. It has no other flavor.

CHAS. F. MUTH.

It was moved by Dr. Mason, seconded by R. L. Taylor, that the subject be referred to a committee on resolutions.

Mr. C. C. Clemons, of Kansas City, Mo., then read the following essay, on

The Grading of Honey.

Your worthy Secretary requested me to prepare and read an essay before this convention on "Grading Honey," and also to make suggestions as to packages; at the same time warning me against any unnecessary embellishment, but suggested I make it brief, and to the point. Therefore, without further apology I submit the following for your consideration, hoping the suggestions may lead to the adoption of some plan that will be applicable and satisfactory to producers and dealers in all parts of the country.

I suggest four grades for comb, two for white, two for amber, namely:

No. 1. WHITE COMB.—Should be all white, good flavor, combs straight, of even thickness, firmly attached to sections, all cells well filled, with white cappings, except a row of cells next to the wood; free from travel stains, wood clean.

No. 2 WHITE COMB.—Should be white, or very light amber, good flavor, white or light amber cappings, sections not less than ¾ filled and sealed, wood clean.

No. 1 AMBER COMB.—Should include all amber honey of good flavor, combs straight, and even thickness, firmly attached to sections, all cells well filled and sealed, except row of cells next to the wood. Slightly soiled from travel stains not barred from this grade; wood clean.

No. 2 AMBER COMB.—Should include all honey of good flavor, irregular combs, and any color, at least ¾ of the sections filled and capped.

I suggest three grades for extracted honey, namely:

WHITE EXTRACTED.—Should be water white, good flavor, and clean.

AMBER EXTRACTED.—Should be bright, good flavor, and clean.

DARK EXTRACTED.—Should include all honey of good flavor, and too dark to grade amber.

This is an important subject, and there is real necessity for adopting some uniform system. As it is, every producer has a right to grade according to his own peculiar notions, and call his grades anything he pleases.

This has been demonstrated to us during the last two seasons. For instance, a producer in California writes us his honey will grade "Extra Fancy White, Fancy White, White, Extra C, and C." One in the extreme Eastern part of the country writes that his honey will grade "Extra Fancy White, No. 1

White, Fancy White, Fancy Amber, No. 1 Amber, Fancy Dark, and Dark." Another, from Missouri, says his will grade "No. 1 White, No. 2 White, No. 1 Amber, and No. 2 Amber.

Our firm just received a carload of white comb honey from California. The shipper makes two grades—No. 1 White, and No. 2 White—and I presume if there had been any amber in the car he would have graded it the same way, and called it No. 1 Amber, and No. 2 Amber. This meets my idea about grades.

Different sections of the country have very different ideas on this subject; this is one good reason why a uniform system of grading should be established; and in order to accomplish this, I find no good reason to change my views on this subject from those advanced by me two years ago at a meeting of the Missouri State Bee-Keepers' Association. I believe as few grades as possible is the best, and I do not believe in grading too high.

One of my reasons for making two grades of white and two of amber is, there is a great deal of light amber honey that will bring almost as much money as No. 1 White, but could not be classed in that grade, and too good to be graded No. 2. If you only have three grades, you would have to have white and amber in No. 2; and in making a sale you would have to designate how much of your No. 2 was white, and how much was amber, hence I think it just as necessary to have two grades of amber as it is to have two grades of white; therefore, in the absence of a standard grade, the dealer must require the producer or seller to send a sample. If he sends the best he can pick out, or even an average case, there will generally be some in the lot that will not come fully up to the sample, and the buyer "kicks," and requires a rebate. If you send a sample of the poorest, then you fail to get market value for your crop. So, in order to bring the producer and dealer together on a simple basis where transactions can be made with justice and satisfaction to all parties, we should be careful to not grade too high, make as few grades as possible, and as liberal as can be done consistent with encouraging improvement and progress towards higher grades.

Most of our largest producers in Missouri only make two grades of their comb honey, and I can say with safety that their No. 1 white honey will compare favorably with any honey marked "fancy," and bring as much money.

As stated before, I think four grades of comb honey (and by the grades being as suggested) will permit all good, merchantable honey, with only such restrictions as will protect the producer, and work no imposition to the dealer.

You will observe I specify "good flavor" in all grades, so the dealer in ordering honey would expect good flavor, of whatever grade received. Flavors may differ according to the blossom, whether white clover, sage, basswood, Spanish-needle, or from any other blossom; but if of "good flavor" would fill the bill. And all honey not coming under this system of grading should be put on the market as ungraded, and sold on its merits.

In regard to packages, I think a uniform style of package should be adopted, and universally used. There is nothing more unsightly than a stack of comb honey put up in a lot of packages all sizes and shapes. On the other hand, what is more pleasing than to see it arranged from packages of a uniform style and finish. I would suggest the single-tier crate, holding 12, 18 or 24 sections. I would have nothing larger than 24, all made of white wood with glass fronts. And as the railroad companies require the glass to be covered, I would suggest that the box factories, in making boxes, provided for this new (but unreasonable) law by having strips for this purpose.

The tight-wood boxes should never be used, as it is necessary to open the boxes to take the sections out to show to customers, causing not only a loss of time, but more or less damage to the honey. The retailer has no use for the tight-wood cases (and he is the fellow to be pleased in the end); he can take the white-wood glass-front boxes and make a fine display, and this aids greatly in selling.

I do not think that any improvement can be made on the 5-gallon tin can, screw top, two in a wooden case, for extracted honey.

In conclusion, I hope before another "Columbian Convention" is held, that we will all have the pleasure of seeing some satisfactory and uniform style of grading and packages adopted.

C. C. Clemons.

After Mr. Clemons' essay, the subject was discussed as follows:

R. F. Holterman thought the grading of comb honey too low, that of extracted too high, as mentioned in Mr. Clemons' essay. There was comb honey at the World's Fair too high to grade properly under it; with extracted there was much strictly first-class honey, not water white—in fact, only in exceptional cases was it water white.

Dr. Miller thought the question at issue had been touched upon only very lightly.

Mr. Muth—I have not touched upon it, because it is of no practical use in marketing honey.

Mr. Draper thought this method of grading was of no practical use. When honey was scarce, an inferior product would be allowed to rank as first-class. When honey was plentiful, buyers were more particular about grading.

Mr. Wilcox—There should be a proper grading; disputes could be avoided in buying and selling, by such a recognized standard. He did not object to a little travel-stain—it was an indication of well-ripened honey.

An animated discussion then took place. Some favored a change, others to the contrary. A warm dispute seemed inevitable, and on motion of Dr. Mason, seconded by O. L. Hershiser, it was voted that the whole matter be laid on the table.

It was then moved by Mr. Muth, and seconded by Dr. Besse, that the programme be finished during the evening, and that the convention meet at the honey exhibits on the World's Fair grounds the following day.

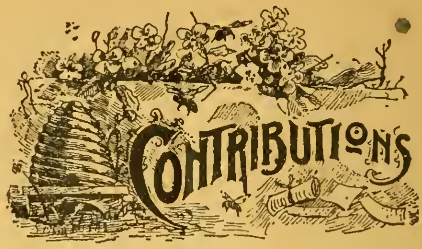
In opposition, it was moved by Dr. Mason, seconded by R. L. Taylor, that the motion be laid on the table. The motion was carried.

It was then moved by R. L. Taylor, and seconded by Mr. Muth, that the topic, "Wintering of Bees," be taken up. Carried.

(Continued next week.)

"**A Modern Bee-Farm** and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the BEE JOURNAL for one year, for $1.70.

Have You Read the wonderful book Premium offers on page 703?



Advantages of the Heddon Hive Considered.

Written for the American Bee Journal

BY W. Z. HUTCHINSON.

I see on page 237 that Mr. Deacon, of Australia, would like to know what are the advantages of the Heddon hive, and how it is regarded here. With the editor's permission, I would like to say a few words on the subject.

In the first place, I think that both Mr. Heddon and his hive have been misunderstood. In the invention of his hive, Mr. Heddon had in view the production of honey with the least amount of labor, the taking of short cuts, the handling of hives instead of frames. The mass of bee-keepers did not seem to catch the true spirit of his methods.

Another thing, Mr. Heddon patented his hive, and it was at a time when the patenting of apicultural inventions was frowned upon. A man who did this was called selfish and grasping, etc. Not only this, but Mr. Heddon's invention was a "combination invention," the putting together of old ideas for a new purpose, and many failed to clearly grasp the situation. Because closed-end frames were used, it was asserted that there was no originality in that feature—the same as was said in regard to compression, and of divisible brood-chambers, etc. The fact that all of these were put together and used for a new purpose seemed to be overlooked. In addition to this, Mr. Heddon had a way of arguing and defending himself and his invention that did not gain him friends. If he thought that a man's idea was of no value, he had no hesitation in telling him so, and often in not the mildest terms. It may be true that a man's invention is of no value, but to tell him so does not make him your friend.

To recapitulate: The inability to comprehend the scope and functions of the Heddon hive and system; the prejudice against patents, combined with the idea that the Heddon patent was not valid, which idea was continually being nursed by jealous rivals; and a prejudice against the inventor because of his out-spoken criticisms, have all worked strongly against the introduction of his hive. A knowledge of all these points will explain why Mr. Deacon should have received the replies that he did.

So much by way of introduction, and I will now proceed to enumerate what I consider the advantages of the Heddon hive. Perhaps I cannot do this better than by mentioning some of the needed characteristics of a hive.

First, the hive should be capable of adaptation to the size of the colony, the season, etc. This is admitted by all. If the combs are very deep, it is impractical to change the size of the brood-nest, except laterally, and by the aid of division-boards; but this method allows a most complete control ot the degree of contraction. Changing the size of the brood-nest vertically is practical only with shallow combs, and the shallower the combs the more perfectly can this method of contraction and expansion be managed.

For awhile before swarming time a large brood-nest is needed—larger, at least, than is needed after the main harvest has come. As top-storing and tiering-up are now almost universally practiced, and, as bees work much more readily over the brood, it is evident that a hive allowing vertical contraction is the one for "contractionists" to use.

If contraction is not to be practiced, then there arises the question of what size shall be the brood-nest? Some plead for generous space, that the queen may not be cramped for room, as though this condition of affairs were very undesirable and unprofitable. Were queens expensive, this plea would be worthy of consideration; but, as the capital is in the combs, honey and hives, rather than in the queen, the question as to which shall be kept employed at the expense of the other's idleness, needs no argument. If the size of the brood-nest is to remain unchanged, then let it be of such capacity that an ordinarily prolific queen will fill it at the height of the breeding season. Let the size be less than this, rather than more. Eight Langstroth combs, or their equivalent, will be sufficient.

Many, in arguing for large hives, mention how much larger yields per colony are secured. True, but do they secure any more per comb? Bee-keeping ought to be viewed in a broad light. The question is something like this: Here is an area of honey-producing flowers, how shall we secure the nectar with the least expenditure of capital and labor? Small hives enable us to secure a more complete filling of the combs with brood, consequently there are more workers for the combs we have. Small hives may cost a trifle more, in proportion to their size, than large hives, but, as an offset, there are the greater ease and quickness with which they can be handled.

Aside from the small brood-nest, to secure a more complete filling of the combs with brood, or to lead to more rapid work in the sections, there may be mentioned the making of hives in such a manner that they may be inverted. Like many things, inversion was over-praised, but it is far from being valueless. Perhaps one reason why it has not been practiced more with the Heddon hive, is because it was discovered that the interchange of the two sections accomplished the same results as inversion.

In small hives, or those that can be handled by sections, and in which the frames are securely fastened, the queen may be found by shaking out the bees, instead of going over the hives comb by comb. When producing extracted honey, the super, with such hives, may be freed from bees in a similar manner, although the bee-escape has about destroyed this point of superiority.

When contracting the brood-nest, one section of the hive is removed instead of taking out combs and putting in dummies. I have used the Heddon hive in large numbers for several years, and I have no hesitancy in saying that it is my choice. It is at once the largest or smallest hive by simply removing or adding sections. There is no handling of dummies, division-boards, and but little handling of frames. When the brood-nest is contracted, the supering surface remains the same. None of the sections are left out in the cold, so to speak, with dummies instead of brood under them. The brood can be spread when desirable by simply interchanging the two sections of the hive. No handling of combs in the operation. The combs can be inverted singly, or a whole hive full at a time. It is a light, readily-movable, single-walled hive, and its closed-end frames make it particularly adapted to the establishing of out-apiaries, or the moving of bees to secure better pasture.

The hive has often been recommended

for use in the production of comb honey, but it is equally as good to use when producing extracted honey. The shallow frames are peculiarly adapted to the tiering-up plan, which is nearly as valuable in producing extracted honey as in comb honey production. Supers filled with shallow combs may be tiered-up and left on the hives for the honey to ripen, when they can be cleared of bees as easily as a case of sections, handled as easily, and when in the honey-house it is only necessary to invert the super, loosen the screws, slip off the case, and there stand the combs all ready for extracting.

I have no interest in the patent on the Heddon hive, nor in its manufacture or sale, and I am writing this simply in defense of what I believe is an excellent hive, but not thoroughly understood.

Flint, Mich.

A Nebraska Report for the Season of 1893.

Written for the American Bee Journal

BY WM. STOLLEY.

My report for the summer of 1893 is as follows:

The season has not been favorable for bees and the production of honey in central Nebraska. The spring was cold and backward up till June, and it required strict attention and considerable additional stores to keep bees in good condition, and have them in proper trim for the honey-flow, when it should have come.

But owing to the excessive drouth in the summer, the honey-flow was cut short, and if it had not been for sweet clover, and about 30 acres of alfalfa, my honey crop would have been a complete failure.

After selling several colonies, I had 30 colonies left in June, all of them in good condition. Twenty-five colonies were arranged to produce extracted, and 5 for comb honey. It was not until the 15th day of June before any perceptible surplus was stored by any one colony.

The 25 colonies, arranged for extracting (on the American frame), gave me 800 pounds of surplus honey, of which I have set aside for apiary feeding 300 pounds in 100 combs. The 5 colonies, arranged for the production of comb honey (in the Heddon hive), gave me 80 one-pound sections well capped, and a small lot of unfinished sections besides.

All my bees are packed in double-walled chaff-hives for wintering now, except 5 colonies, which are in single-walled Heddon hives, and packed in a vault with forest leaves.

Each colony is provided with about 28 pounds of winter stores, on 7 frames, and, as stated above, about 300 pounds of honey in 100 combs is kept in reserve for spring feeding.

I had but one swarm during the past season, and my bees quit breeding one month earlier than usual in former years.

We have had but few fall flowers in consequence of the want of copious rains at the proper time, and therefore hardly any dark-colored honey this season.

Grand Island, Nebr., Nov. 7, 1893.

Bees Packed for Winter—Ready for Jack Frost, Etc.

Written for the American Bee Journal

BY REV. W. P. FAYLOR.

Today (Oct. 25th) I finished packing my bees for the season. All are to weather it out-of-doors the coming winter. Each colony is inside of double walls, with chaff-packing between the walls. On the sides and beneath they are all packed with clover chaff. On the top of each hive is three inches of oat-chaff, and over this about five inches of dry forest leaves has been placed.

I had to feed considerable this fall to get the bees strong and heavy. We had no honey-flow this fall—something on the line of experience I had never met before. I have used nothing but pure extracted honey, from linden and white clover, for winter stores the present season. I never have had any success wintering bees in a very cold climate on sugar stores; and I've tried again and again. For me, the bees are always slow to cap sugar-fed stores. I've given it to them thick, I've given it to them thin—yes, and I've given it to them the other way, but in spite of all, they are apt to leave a comb here and there with unsealed stores, which always proves detrimental in severely cold weather.

I have one chaff-hive that contains eleven colonies of bees. This big hive, with as many openings, all to the east, is a curiosity to the vicinity.

THOSE VERY YELLOW BEES.

Much has been said in praise of the five-banded bees, and a good deal to the contrary. It has been said, and urged, that very yellow queens are poor layers. Perhaps a majority are so, but there are reasons why this is so. Not one of these light-colored queens in a hundred is reared under the swarming-impulse—the only sure way to get extra-good laying queens.

Then, a queen sent through the mails is no criterion to go by. Who ever saw a good laying queen after she had gone through the mails? I have received queens from the east, west, north and south, and I have never had a queen sent me through the mails but what would invariably fizzle out after a few months' use. I have never had one to live more than seven months when put to actual good use, and the majority are "done up" at two or three months.

Dark-colored queens, artificially reared and sent through the mails have proved as futile as any.

Did I wish to change an apiary of dark-colored bees to yellow or light again, I should let the bees rear their own queens after the swarming impulse and give my attention to distributing yellow drones all through the apiary. Doing this a few years will brighten the color fast enough, and keep the bees hardy. Get a fine, yellow queen, that produces very fine colored drones, and have her come in a nucleus by express, every time.

FERTILE QUEEN LAYING BUT ONE KIND OF EGG.

About two years ago, after making several tests. I stated that the fertile queen laid but one kind of egg. Jennie Atchley's test this summer is getting nearer me. The law governing the fertile sex of a queen-bee's egg is yet unknown, the same as that of a hen.

Updegraff, Iowa.

Apiaries Destroyed by a Gale in Florida.

[The following private letter was written to Dr. Mason, and he sent it to us for publication, thinking that it would be of interest to our readers:—Ed.]

New Smyrna, Fla., Oct. 28, '93.

Friend Mason:—On arriving home I found my apiary of 50 colonies, in 2-story Langstroth and Gallup hives and frames, almost ruined. The gale of Oct. 12th and 13th overflowed the entire grounds, and hives, combs, bees, etc., with logs, drift, etc., in a high old mix. Ten colonies in a higher part of the grounds on a bench were not overturned. I possibly can save 10 more in an uncertain condition. My combs are filled with sand and salt water to a great extent, valueless except for wax.

The honey season here the past year was a failure, though my colonies were well supplied with stores before their destruction. I have plenty of wax, frames, hives and foundation, but no honey to feed to build up in time for next season.

My neighbor, Mr. T. H. McFarlan, lost all, having brought 50 colonies here last spring. Some of those he united at the commencement of the honey season (mangrove), but got no honey. They are now all destroyed with the combs. Now I have been thinking that with a little help from a few of my friends, we can come right side up by mangrove time next year. Had we honey to stimulate the queens, we could be independent, but not having it we must do the next best thing, which I concluded was this:

If I can borrow a number of queens from my friends in the North, say one or two from each, as they can spare without detriment to themselves, I can return them by June 1st, or before if necessary. By moving those colonies I have remaining, to a suitable place on the main land, they will secure early forage, and build up rapidly. Now if you, or any of your friends, have any kind of a laying queen—black, hybrid, or Italian—I could use a number to good advantage. I would not object to donations, but if they were to be returned, I should like the sender to state the kind of queen he sends, its value, and when he wished it returned, or if another of like condition would be accepted in case of loss in introducing.

At this season there are no doubt many who have light colonies and extra queens, if we only knew of them. You are in a position to know of those friends that would be likely to have them.

Things look demoralized here, but it might have been worse. Other neighbors have lost also. I think I can get spring forage by Jan. 1st to 15th, by moving. I will write to a few of my other friends whom I think would be willing to give my friend and myself a lift in this emergency.

A nucleus with a laying queen will soon build up, when, if we wait until we rear a young queen, we may "get left." It is time we wish to save, in order to get strong colonies to extract from, as our combs must all be built out of foundation.

These are the conditions and circumstances in which I find myself. I can stand it better than my friend. I offered him my bees to build up a start from, and I would do what I could in getting queens to help. JOHN Y. DETWILER.

[Who will volunteer to help the friends in Florida, that could soon be "on their feet" again, if a little aid were given at this time? Please correspond with Mr. Detwiler at once, and see if you can help them any. Mr. D. was at the North American convention last month, and doubtless little dreamed that his apiary was being destroyed at that very time.—ED.]

Convention Notices.

NORTH CAROLINA.—The Carolina Bee-Keepers' Association will hold its 3rd annual session at the Court House in Charlotte, N. C. on Dec. 7th, 1893, at 10 a.m.
Steel Creek, N. C. A. L. BEACH, Sec.

KANSAS.—The Kansas State Bee-Keepers' Association will meet at Ottawa, Kans., on Dec. 28th and 29th, 1893. Free entertainment to all members in attendance. Come and get acquainted. J. R. BARNHARD, Sec.
Ottawa, Kans.

IOWA.—The Eastern Iowa Bee-Keepers' Association will meet at Delmar, Iowa, on Dec. 13 and 14, 1893. All interested in bee-culture are requested to be there, and to bring with them any thing or fixture that might be of interest to bee-men.
Welton, Iowa. FRANK COVERDALE, Sec.

VERMONT.—The 19th Annual Convention of the Vermont Bee-Keepers' Association will be held in Burlington, Vt., on Jan 24 and 25, 1894. Programmes later. All interested in apiculture are invited to be present. Whether you live in Vermont or outside, come to the Burlington meeting. H. W. SCOTT, Sec.
Barre, Vt.

ILLINOIS.—The Illinois State Bee-Keepers' Association will meet at Springfield, Ill., on Dec, 12 and 13, 1893, in the Senate Judiciary room at the State House. The Illinois State Grange, the Illinois State Horticultural Society, and the various Stock Breeders' Associations meet at the same time, and in the several rooms of the State House. Railroad fare has been secured on the Certificate plan, 1⅓ rate. Those attending, to get the rate, must pay full fare going, and get a Certificate of the agent where the ticket is purchased. Rates at the hotels are secured at $1.50 per day, where two or more days' board is paid. The Horticulturists and Bee-Keepers are to make their head-quarters at the Hotel Palace. Come, everybody, and have a good time.
Bradfordton, Ills. JAS. A. STONE, Sec.

Read our great offers on page 703.

OUR
LETTER BOX
REPORTS, PROSPECTS, &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

From a Minnesota Lady Bee-Keeper.

I am in receipt of letters from readers of the BEE JOURNAL who ask why I do not write any more for its columns. One asks if my "enthusiasm played out the first year." No, indeed! I am getting to be more of a crank in bee-culture every day. But I am too busy with my 40 colonies, besides my farm-house work, to write. Then, too, some one else is always saying "it" better than I could.

But I would like some one familiar with the honey-plants of this latitude (the State line between Iowa and Minnesota, 180 miles west of the Mississippi), to tell me what the bees gather white honey from after Aug. 25th. Some of my strongest colonies gathered over 30 pounds each, of beautiful water-white honey, of very delicate flavor. There was not a pound of it to be found until after Aug. 25th, when I took up my buckwheat honey.

I had 32 colonies last spring, and they only increased to 40. I use the 10-frame Langstroth hive. When the hive gets to be overflowing with bees, I raise it up from the bottom-board and put a little piece of lath across the corners so as to leave a crack clear around the hive the width of a lath. This has checked swarming, in a great measure, the past two years.

I harvested over a ton of honey this year, mostly in pound sections, which I am disposing of in our own vicinity for 16 cents a pound. Most of the bees died here the last two winters, of bee-cholera. So I received 20 cents a pound for the first few cases of honey this fall. MRS. B. J. LIVINGSTON.
Center Chain, Minn., Nov. 20, 1893.

Glucose with a Little Honey in It.

I have thought for some time that adulterated honey was being sold in this State, and through the kindness of the State Dairy and Food Commissioners, and State Chemist, I have been able to find that F. H. Hunt, of Redlands, Calif., is now selling honey here that the State Chemist says is "almost pure glucose." I refer you to the State Dairy and Food Commissioners of this State.

I have been selling honey for several years, and have never sold anything but pure honey, and I think that is what every bee-keeper should do. I have no objection to any one selling glucose, if they tell what it is, but to sell it for pure honey is something that I am opposed to, and every bee-keeper should take an active part in trying to put a stop to any such work. I believe Mr. Hunt has sold several thousand pounds of the stuff in Minnesota. I think the bee-keepers in the small towns where he has sold his so-called "pure honey," should look the thing up, and let their friends know what kind of suff they are buying for pure honey.

I have spent considerable time, and some money, in trying to find out the facts as stated in the above, and would be very much pleased if it would be published in the BEE JOURNAL. We have no law for such work in this State, and the only, or best, thing that we can do is to give them notoriety through the bee-papers. What will, or can, the National Bee-Keepers' Union do in a case like this? Will the editor, or Mr. Newman, kindly answer?

St. Paul, Minn. J. A. HOLMBERG.

[We referred the foregoing letter to Mr. Newman, the efficient General Manager of the Bee-Keepers' Union, and here is his reply to it:—ED.]

If this F. H. Hunt is the same one who formerly lived at Centre Point, Linn Co., Iowa, I would say that he seems to be at his old tricks again. By referring to the AMERICAN BEE JOURNAL for 1884, on pages 424, 475, 492, 563 and 724, the reader will see an expose of his glucose-honey business. Mr. Hunt sent a reply to these articles, which was not published because of its offensive personalities.

Mr. T. L. Von Dorn, President of the Nebraska Bee-Keepers' Association, brought a bottle of the "stuff" Mr. Hunt sold to Mr. Tamblin (selected at random from a ton of it), and submitted it, for analyzation, to Dr. Arno Behr, Chemist of the Chicago Sugar Refining Company. That chemist found it to be "strongly adulterated with glucose syrup, containing over 50 per cent. of its weight of the latter substance."

After publishing this on page 724 of the BEE JOURNAL for 1884, I remarked editorially: "This looks conclusive;" and Mr. Von Dorn adds: "It ought to cause a blush of shame on those who have upheld the fraud!"

In Iowa Mr. F. H. Hunt (if it is the same man), was satisfied with 50 per cent. of glucose, but in California he seems to be making it "almost pure glucose."

If the matter can be so arranged as to give a clear case of *unmistakable* identity in the honey, tracing it to the person putting it up and selling it for honey, I feel justified in saying that the National Bee-Keepers' Union will prosecute the perpetrator of the fraud. THOMAS G. NEWMAN.

Chicago, Ills., Nov. 16, 1893.

[While it is a very serious matter to unjustly accuse a person of adulterating honey, we publish the foregoing that those who are doing such criminal work may be warned to desist, or they may have the Bee-Keepers' Union after them. Of course, *we* do not say that Mr. Hunt adulterates honey, but if he does not, he will now have a chance to explain, if done in a gentlemanly way. No "offensive personalities" will be published in the BEE JOURNAL, no matter who writes them.—ED.]

Results of the Season in Kansas.

Bees did fairly well in this part of the country the past season. As the spring was very backward and dry, there was but very little bloom of any kind for the bees to work on. I have 36 colonies of Italian bees in movable-frame hives. Bees wintered very poorly here last winter, and did not swarm very much during the season. I hived 3 new swarms this season from 33 colonies, spring count, and got 40 pounds of comb honey and 200 pounds of extracted, of fine quality.

I had to feed my bees the forepart of the season to keep them from starving, until the middle of June before they could gather honey enough to live on. But I had my bees in good condition for the honey-flow when it came, and it did come in good shape, too, but did not last very long. But while it lasted, the bees just fairly rolled the honey in—they filled up the brood-chamber chock-full, and commenced in the sections, when the dry weather set in, so I did not get very much surplus honey; but the bees are in good condition to winter.

A. W. SWAN.

Centralia, Kans., Nov. 7, 1893.

A Mild Kick from "The Kicker."

On page 526 we have a criticism from Mr. Stinger, that the *American Apiculturist* is a very tame affair, with the best part of its name sunk into oblivion. Now, Bro. York, the time was when we thought it heretical to abbreviate, when we called people by their full names, even though it was Matilda Mehitabel, but that time is past; we are living in a faster age, and want the milk of the thing with as little refuse as possible. Bro. Alley is giving it to us just in the right shape—sawed-off, boiled down and hammered into a small compass; and while we sometimes think he bites off just a "*leetle*" more than he can properly masticate, he mostly "gets there" about right. The "*Api.*" is a dandy, and so is the BEE JOURNAL—just such papers as the majority of bee-keepers need and want. They are business. THE KICKER.

Enfield, Ills.

Be Sure to See page 703

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, in Washington, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

CHICAGO, ILLS., Nov. 9, 1893.—The receipts of comb honey in October were very heavy, ranging from amber to No. 1 white comb. Very little fancy finds its way to this market, still we received some last week. We have had a good fall trade with good prices. Business is slacking off some, out we anticipate good trade again just before the holidays. We predict this to be the best season ever known for this market. We are selling extracted readily at prices somewhat lower than was expected at the beginning of the season, but sales are heavier. We quote: Fancy and No. 1 comb, 15c.; No. 2 and fancy amber, 13@14c.; dark, 10@12c. Extracted, 6@7c. Beeswax, 18@22c. J. A. L.

CHICAGO, ILL., Nov. 1.—Fancy white comb honey brings 15c. per lb. Grades not grading first-class are not selling at over 14c., as there has been quite a quantity of California honey received here, and is offered at 14c. The quality is superior to most of that we receive. Dark comb honey sells slowly at 12@13c. Extracted ranges from 5@7c., according to color, quality, flavor and style of package. The trade in honey has been large this season.
Beeswax, 22c. R. A. B. & Co.

ST. PAUL, MINN., Oct. 9.—Our market for comb honey is improving, and receipts since our last report have moved off fairly well, prices unchanged. We quote best white comb honey 14@15c. for California. Extracted lower under free offerings from the coast; we quote 5½@6c. for white or amber in five-gallon tins. S. & A.

NEW YORK, N. Y., Nov. 1.—Our market on white honey is weak and shows no activity. Supply is plenty, arrivals are large, and the demand is light. Hence prices have a downward tendency and concessions have to be made to effect sales. We quote: Fancy white, 1-lbs., 14c.; 2-lbs., 12c.; fair white, 1-lbs., 12c.; 2-lbs., 11c.; buckwheat is scarce—1-lbs., 11@12c.; 2-lbs., 10c. The market is well stocked with extracted of all kinds. We quote: White clover and basswood, 6@6½c.; California, 5½@6c.; Southern, 55@65c. per gallon.
Beeswax, 24@25c. H. B. & S.

BOSTON, MASS., Oct. 9.—We quote honey as selling fairly well. Best white at 15c. Extracted, 6@7c. Beeswax, 25@28c. B. & R.

KANSAS CITY, MO.—We quote: No. 1 white, 16@17c.; No. 1 amber, 14@15c.; fancy dark, 12@13c.; No. 1 dark, 10@12c. Extracted, 6½@7c.; amber, 5½@6c.; dark, 5c. Beeswax, 17@18c. C.-M. C. Co.

KANSAS CITY, MO., Sept. 14.—Demand is good. Supply light. We quote: 1-lb. comb, 16c.; light weight, 14c. Extracted, white, 7½c.; amber, 6½c.; dark, 5@5½c.
Beeswax, 22@25c. H. & B.

CINCINNATI, O., Nov. 20.—There is a fair demand, in the small way, for extracted and comb honey, but demand from manufacturers is uncomfortably slow, with large stocks on hand. Extracted honey brings 5@8c., and comb honey 12@16c.
Beeswax is in fair demand at 20@23c, for good to choice yellow. C. F. M. & S.

CHICAGO, ILL., Nov. 23.—The Chicago market has plenty of honey, and 14c. seems to be the outside price obtainable. Anything that will not grade strictly No. 1 must be sold at 12@13c. Large quantities have been sold, but the supply is at present in excess of the demand. Extracted finds ready sale at 6@6½c. for Northern honey; Southern, in barrels, 5c. Beeswax, 22@24c. S. T. F. & Co.

ALBANY, N. Y., Nov. 23.—Honey market is easier on light and mixed grades, and firm on buckwheat. Small combs sell at 11½@12c. H. R. W.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

F. MUTH & SON, cor. Freeman & Central avs

When Renewing Your Subscription, why not send along one or more new subscribers, and take advantage of our liberal premium offers on page 703 of this copy of the BEE JOURNAL? You certainly can easily secure the subscribers, if you will show them that they also receive their choice out of several free premiums. Try it, and see what you can do.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

ESTABLISHED IN 1861

OLDEST BEE-PAPER IN AMERICA

THE AMERICAN BEE JOURNAL

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXI. CHICAGO, ILL., JUNE 8, 1893. NO. 23.

EDITORIAL BUZZINGS

World's Fair Apiarian Exhibit.—On Saturday, May 20th, accompanied by Mr. W. A. Pryal, our jovial California correspondent, we visited the great Fair, and spent considerable time in the Agricultural Building, wherein are located the apiarian exhibits. After walking for a long distance on the first floor of the mammoth building whose area is a little over nine acres, we ascended to the second floor, at the eastern end of which is located the exhibits that will most interest bee-keepers.

Upon reaching the row of perhaps a dozen large glass cases built especially for the honey and wax exhibits, we found Mr. Allen Pringle and Mr. E. Whitcomb, the former having charge of the Ontario display, and the latter representing the progressive State of Nebraska.

At this time we will not attempt to give a minute description of the various apiarian exhibits already in place, but will reserve that for future numbers of the BEE JOURNAL. During the summer we will endeavor to give many interesting details of all the displays of honey, wax, and bee-appliances, and if possible to arrange, publish illustrations of them, which will aid those who may not be able to attend the Fair, as well as form a record for preservation.

We may say now, however, that the States of Nebraska, Wisconsin, New York, Iowa and Ohio have their exhibits of honey and wax either wholly or partially completed. Mr. Pringle was at work arranging a series of long tables, one above the other, within Canada's glass case, each table or stand being narrower as the tier neared the top of the case.

The cases are made of sliding glass doors, built upon a box elevation of perhaps three feet. All is made tight, so that no dust can get in where the honey and wax are placed. The glass doors can also be locked up, so that none of the exhibits may be carried off, or be handled in any way by those who view them. The cases are each 25 feet long, 7 feet high, and 4½ feet wide, inside measurement, and, with their contents of tempting sweets, present a most pleasing appearance.

Bro. A. I. Root had his exhibit of bee-supplies all in place. It is an instructive display, showing every implement and article used in a complete modern apiary, all arranged in such a way as to be seen at the best advantage. This exhibit is enclosed in a three-sided glass case, built against the outer wall of the main structure.

Among other exhibits of bee-supplies were those of Messrs. E. Kretchmer, of Iowa; Chas. F. Muth & Son, of Ohio; C. H. Putman, of Wisconsin; Lester L. Price, of Nebraska; A. G. Hill and G. K. Hubbard, of Indiana; and The Falconer Mfg. Co., of New York. As before mentioned, we will give detailed description of these and other apiarian exhibits later.

One Cent Postage Stamps we prefer rather than two cent ones. When sending fractions of a dollar, please send us the one cent stamps.

The Illinois Apiarian Exhibit at the World's Fair is now being arranged for. We have received a circular from Mr. Jas. A. Stone, Secretary of the State Bee-Keepers' Association, in which are given the Rules and Regulations for the Apiarian Exhibit of the Illinois State Bee-Keepers' Association, to be made at the World's Columbian Exposition, May 1 to Oct. 31, 1893.

The following is a copy of the circular sent out by Mr. Stone, and should be read by every subscriber to the BEE JOURNAL in Illinois:

To the Bee-Keepers of Illinois:

By an Act of the Illinois Legislature a sufficient sum of money has been appropriated to enable the Executive Committee of the Illinois State Bee-Keepers' Association to make a creditable exhibit of the apiarian products of the State of Illinois, in the National Agricultural Building of the World's Columbian Exposition.

The rules of the Department of Agriculture are given below.

It will be the aim of the Executive Committee to conduct the exhibit in such a manner that it will result in the greatest good to the apiarian industry of the State.

The rules of the Board of Control of the World's Columbian Exposition require all exhibits to be made in the names of the individuals exhibiting, and all awards must follow the decision of the national judges.

The committee propose to forward shipping-tags to all exhibitors, requiring them to carefully pack, prepay freight, and forward duplicate receipts to the Secretary of the Illinois State Bee-Keepers' Association, care of W. I. Buchanan, Chief of the Department of Agriculture, World's Fair Grounds, Chicago, Ills.

The Committee will pay all freight and expenses incurred in connection with the said exhibit, and will dispose of all the apiarian products consigned to them to the best advantage, and return the proceeds to the exhibitor; or they will, on his choice, be returned to the owner at his expense.

In case a shipment should not reach the Exposition in presentable condition, the Committee will dispose of the same to best advantage, and return the proceeds to the owner—which will not prevent him from sending another shipment in the same line.

Bee-Keepers of Illinois! Never before have we had such an opportunity to show our products to the world.

We must have the best the State can produce, and plenty of it, that we may maintain our reputation, and receive a large share of the awards.

We urge upon you the importance of the occasion, and ask you to send application for entry, and your assistance in distributing this circular, that a large proportion of the bee-keepers of the State may be represented. Either the President or Secretary of the Illinois Bee-Keepers' Association will be in charge of the exhibit.

Special Rules and Information Governing the Exhibit of Bees, Beeswax and Bee-Appliances.

1. Exhibits of Honey will be classified as follows:

Class 1—Clover and Basswood.
Class 2—White Sage.
Class 3—Buckwheat.
Class 4—All light honey, other than enumerated in Classes 1 and 2.
Class 5—All dark honey, other than enumerated in Class 3.

2. Exhibits of honey produced in 1892, or earlier, must be sent in as soon as possible.

3. Exhibits of Honey in Classes 1, 2, and 4, produced during 1893, will be received between July 15th and Aug. 15th; and in Classes 3 and 5, between Aug. 15th and Sept. 1st, 1893.

4. The following information should accompany each exhibit:

(a)—Kind of honey.
(b)—Name of exhibitor.
(c)—Place where produced.
(d)—Character of soil in locality where produced.
(e)—Variety of bee.
(f)—Name of plant from which honey was produced.
(g)—Yield per colony.
(h)—Average price of product in nearest home market.

5. The dimensions of cases in which exhibits will be made are as follows: Inside measurement—width of case, 5 feet; height, 6½ feet; total height of case, including base, 8 feet.

6. Individual exhibits of comb honey will be limited to 100 pounds, and may be made in any manner the exhibitor may desire, subject to the approval of the chief of the department.

7. Individual exhibits of extracted honey must be made in glass, and must not exceed 50 pounds.

8. Individual exhibits of beeswax must not exceed 50 pounds, and should be prepared in such a manner as will add to the attractiveness of the exhibit.

9. Exhibits of primitive and modern appliances used in bee-culture, both in this country and abroad, will be received, subject to the approval of the chief of the department.

10. Special arrangements will be made by the chief of the department for a limited exhibit of bees.

11. Collections of honey-producing plants, suitably mounted and labeled, will be accepted if satisfactory to the chief of the department.

Please make your application *immediately*, that shipping-tags may be sent you, and full directions given.

For further particulars address,

JAS. A. STONE, *Sec.*
Bradfordton, Ills.

* * *

An Abnormal Season is what they have had so far this year in England. It has been unusually dry, and rain was needed very badly in May.

Preventing After-Swarms.—Bro. Hutchinson, in the *Review*, gives the following plan, by the use of the bee-escape:

> Frank Coverdale writes me that he has prevented after-swarming by hiving the swarm on the old stand, then placing the old hive by its side with its entrance near that of the newly-hived swarm. The old hive is then closed, except that a bee-escape is placed in the entrance on the side next to the new hive. Of course, every bee that leaves the old hive never gets back, but finds its way into the new swarm. All of the working force, and all of the young bees when they come out to play, are thrown into the new swarm.
>
> In seven or eight days the old hive can be given a new stand, the same as in the Heddon plan, but it will be completely robbed of all the bees except the young, downy, just-hatched ones, which is not the case with the Heddon plan, and after-swarming will positively be prevented in *every* case.
>
> If no increase is desired, the escape can be left in place for a longer period, 21 days if the weather is warm, or, if it is cool, it may be taken away at the end of two weeks.
>
> When the bees have all hatched out, the few remaining may be shaken off in front of the new swarm, and the honey extracted from the combs, or they can be used in any way thought best. Or the matter may simply be carried to such an extent that the old colony will be so weakened that not only will it not swarm, but it will not be sufficiently populous for winter, but will still be able to care for and protect the combs until fall, when the two colonies may be united, the better queen being preserved.

Introducing Queens.—The following directions for introducing queens we found printed on a queen-shipping cage recently :

> After removing the cover, note the condition of the queen, and if she is all right, proceed to introduce her. First remove the slip of card from the end of the cage containing the candy. Lay the cage on the frames directly over the cluster, wire-cloth down, so the bees can become acquainted with the queen; cover the cage with the enameled cloth, or quilt, put on the cover, and do not molest the hive under any circumstances for five days, at which time you will likely find her out and laying. If you have a flat cover on your hive, just tack a thin strip of wood across the back of the cage, spread the frames, and hang the cage, face down, between the frames. Before introducing, be sure your colony is queenless.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Just a Word with You.

We mean with the readers of "General Questions." This department is meant for the benefit of all who may wish to avail themselves of it, and we wish our readers to feel the utmost liberty in sending in any questions to which answers are desired. Don't feel that you are intruding—we desire the questions as much as you desire the answers. This department lays no claim to infallibility, and it is possible that some of your questions may be too hard for it, but it does desire to be honestly helpful just as far as its ability goes.

Now a word as to the manner of sending your questions : Before us lie questions from two different persons. One of them is scribbled in pencil on what appears a scrap of waste-paper, somewhat crowded for room, and so hard to decipher that some words cannot be made out at all only as they may be guessed at from the connection. It is a real relief to turn from that to the other, which is written with some appearance of care, the writing being so plain that any schoolboy could read it. Now all cannot write like copper-plate, all cannot avoid mistakes in spelling, but please do what all can do, and that is, to make your questions just as plain as you can.

If you specially desire that your questions shall be answered in this department, just say "For General Questions." Also, please do not get in a hurry for the reply, as questions must take their turn, unless it be those that will not become worthless by a short delay, and thus can be put aside a time for such as are necessary to be answered at once in order that the reply be seasonable.

Drones and Swarming—Dead Bees.

1. Do bees ever swarm after they begin to drive off the drones? "A B C of Bee-Culture" says for the time being, but mine are at it now, and I had swarms in June, in 1892.

2. What was the matter with my bees? In February we had some warm days,

and I had one colony to bring out lots of dead bees, more than was usual. It was a small colony, and there were 150 bees dead with their heads to the bottom of the cells, and sealed honey around them. Their combs were clean, and the queen was dead. M. W. GARDNER.

Bankston, Ala., May 20, 1893.

ANSWERS—1. Yes, if there comes a dearth after drones appear, the workers may kill them off, and swarm when a new lot is reared.

2. It is nothing unusual for bees to carry out their dead when a warm day comes in winter. An unusually long spell of confinement would make an unusual number. Sometimes a small cluster gets separated from the main cluster and are found dead. In the case you mention, the number of bees may have been so small that they could not keep up sufficient heat.

Keeping Bees on Shares.

I have taken four colonies of bees on shares. The agreement is that they are to swarm once, and are to be worked for comb honey. The question is, would you, under these circumstances, put on any sections before they swarm, or wait until afterward?

The share that each gets is half the swarms and half the surplus honey.

Waupaca, Wis. SAMUEL TAYLOR.

ANSWER—One of the hard things to answer is a question about bees on shares. Unless everything is definitely agreed upon in advance, and put down in black and white, with such a variable factor as a colony of bees there is likely to be misunderstanding and trouble.

Your agreement seems to be an original one, that the bees "are to swarm once," and one would conclude that you are expected to make them swarm once, but you say nothing about the penalty in case you fail to make them swarm, nor what is to be done in case the little creatures take it into their heads to swarm more than once. Doubtless all second swarms can be prevented, but there do happen cases—would that they might happen oftener—in which bees stubbornly refuse to swarm. Suppose there comes one of those bad seasons when bees do not make a living, to say nothing about swarming, at the end of the season you are bound to return the four colonies together with four additional, and not one has swarmed, where are you? We know of a certain enthusiastic beginner in Iowa who took bees on shares with a somewhat similar agreement, and he actually had to give up all the bees he had and buy more to make good his agreement.

So you see it's a hard matter to answer your question without knowing what is to happen if you don't succeed in making the bees swarm. But the probability is that they will swarm more than you desire, and it may be your safest plan to put on supers before swarming.

Getting Rid of Black Drones.

How do the bees get rid of black drones, old and young, when Italianizing an apiary? R. C. FOWKE.

Baldock, S. C.

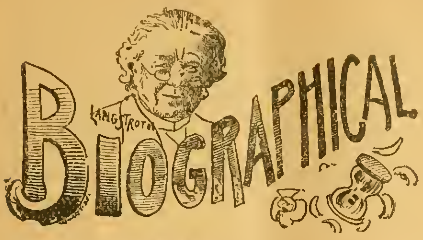
ANSWER.—The easiest answer to your question is to say, "They don't." That is probably the true answer in most cases. Even if you get rid of all objectionable drones in your own apiary, they may come from other apiaries about you. But with enough care it may be possible to control the matter entirely in your own apiary.

In the first place, prevention is better than cure. See that no drone-brood is allowed to hatch out. Slice off the heads of all sealed drone-brood. While you are at it, it may be well to cut out all drone-comb, putting in its place patches of worker comb.

But bees are very persistent in rearing drones, and if you leave them no drone-comb they will rear a few drones here and there in a very troublesome way. Doolittle's plan is to leave about an inch square of drone-comb in the hive to satisfy them, then you will know right where to look for drone-brood, and can shave off the sealed brood about every three weeks. To get rid of what are already hatched out, use the Alley drone-trap.

"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the BEE JOURNAL for one year, for $1.70.

"Bees and Honey"—see page 707.



J. H. LARRABEE.

Mr. Larrabee, the subject of our sketch and picture this week, is one of the newest additions to our corps of query answerers. We had the very great pleasure of making his acquaintance in October, 1892, at the meeting of the Illinois State Bee-Keepers' Convention here in Chicago. We had quite a visit with Mr. L., and felt that in him we had indeed found a good friend.

J. H. LARRABEE.

Mr. Larrabee has written perhaps more for the *Bee-Keepers' Review* than for any other bee-periodical, though the BEE JOURNAL has often been favored with contributions from his graceful pen and brilliant mind.

He was born at Niles, Mich., on Sept. 14, 1862. At an early age his parents removed to Vermont, where "J. H." went through the usual experiences of boyhood on the farm. At 14 years of age he was sent away to school, where he remained in academy and college for four years. After about three years of teaching school, chancing to be at home one spring he became interested in the bees and their intelligent management. With regard to his early experiences, Mr. L. writes:

"Well do I remember the first copy of the AMERICAN BEE JOURNAL I ever saw. I carried it to the field one day, to read when resting the horses at the end of the furrow, and accidentally dropped it in the mud. I can still find the marks of the fall upon this first copy."

His progress was rapid, as he adopted the chaff-hive system of wintering bees, and lost few bees in winter, while the excellent white clover and linden forage gave ample encouragement, from a worldly view.

During the past five years of general depression in the bee-business, his bees have not only paid all expenses, but wages of at least $50 per month for all the time spent with them. This fact proves not only that the Champlain Valley is worthy of the reputation it bears as an excellent locality for bees, but that proper care at the right time, and with a system that has something of system in it, are large factors contributing to success in bee-culture.

He has explained his system several times, wholly or in part, in the bee-papers, and, as he himself says, the only thing specially meritorious about it is that it *is* a system for the whole year, and that it is carried out practically, and all short-cuts to lessen work are thus taken advantage of.

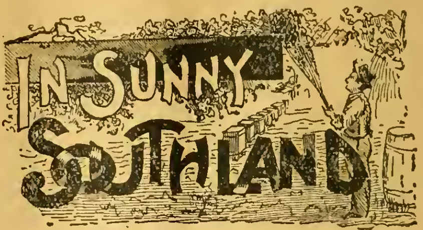
For the past six years Mr. L.'s apiary has contained from 80 to 130 colonies of bees; and for the past four years he has run an out-apiary of about 30 colonies for extracted honey.

In August, 1890, he became acquainted, personally, with the junior editor of *Gleanings in Bee-Culture*, Mr. Ernest R. Root, and in November of that year, when Prof. Cook was searching for an assistant in conducting the experiments in bee-culture that were undertaken by the authorities of the Department of Agriculture at Washington, Mr. Root referred him to Mr. Larrabee, and after inquiries, he was asked to fill the position, which he did to the best of his ability for two years, when the station was discontinued. The report of his experiments for 1892 will be printed, we think, in Bulletin No. 28 of the Department of Agriculture, soon to be issued.

Mr. L.'s present home is in Lansing, Mich. Although he is not, the present season, engaged in bee-culture, he retains his interest in the pursuit, and reads all the principal apiarian periodicals, so far as time will permit. His younger brother, Wallace, at Larrabee's Point, Vt., has charge of his bees, and he considers himself very fortunate in having a brother who can be depended upon to carefully care for his pets. W. G. Larrabee follows his brother in his love of the bees, and owns about 60 colonies himself.

Mr. Larrabee bears an untarnished record wherever known. He is unmarried, which, we think, must be wholly from choice. More will be heard from him bye-and-bye, we are led to expect, and we also sincerely hope.

Mrs. Jennie Atchley will attend the meeting of the horticultural society at Rockport, Tex., on June 20th. Bee-keepers will unite in the meeting, and a grand time is expected. A steamer will be placed at the command of the meeting, to be used on the Ocean as they may choose. Better go if you can, and have a good time, as well as get intellectual profit.



CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

Texas State Bee-Keepers' Convention.

For the first time in many years I attended the Texas Bee-Keepers' Convention, its last meeting being held at the apiaries of W. R. Graham and Mrs. Jennie Atchley, in Greenville, Tex. There, in a beautiful grove of large oaks, surrounded by the busy bees, we went on April 5th and 6th, 1893. The weather was like summer, and the hum of the millions of workers was encouraging music to our ears. It filled me with the happiness and zeal of former days. The meeting was in the neighborhood in which I had lived for ten years, and the meeting of old friends and neighbors made it doubly interesting to me, since all evinced a real and undisguised pleasure in welcoming me. The days of our early acquaintance were gone over again, and it seemed more like a family reunion for pleasure than for the discussion of the subjects, for which we have assembled.

While Time had removed from us many of our most zealous workers, and wrought changes in the appearances of persons and places, yet that same confidence and affection existed, such as no calling or profession recognizes with that mutual feeling of friendship, like that of bee-keepers, more especially in our beautiful Southern home—our own beloved Texas. Too much cannot be said for our host, Wm. R. Graham, and hostess, Mrs. Jennie Atchley, who had taken careful pains to see that every arrangement for our accommodation and pleasure was complete, and to them we owe, in a great measure, the success of our meeting.

Bro. Graham is one of our oldest and most successful bee-keepers in the South, he is always "at home" to bee-keepers, naturally generous, and is in the zenith of his glory at a "bee-meet-in'." He showed us through his supply factory, which he told us must be run day and night to keep up with the orders, and while it appeared to one who knew little of the demands of bee-keepers, that the stock on hand would supply every bee-keeper in the State for years, yet he assured us that he would, owing to the increasing demand, be compelled to put in a larger engine and increase his facilities in every direction; clearly illustrating the fact that these conventions have been the means of developing some of the best bee-keepers and most extensive apiaries in the South.

Through the kindness of Mrs. Atchley and her interesting family of queen-breeders, for every child from the oldest to the youngest handles bees like professionals, we were shown through the apiary; the beautiful queens from which are bred annually thousands of fine queens, the bright 5-banded workers, their gentle manners, being manipulated without smoke, all tended to prove the value of this strain.

While these little kindnesses shown us by the "out-door department," had their effect toward making the meeting a success, yet they bear only a passing interest when compared with the "bill of fare," and the manner in which it was served. In the announcements published, the password was, "No hotel bills," and be assured that Delmonico could not have served a *menu* that would have been appreciated by bee-keepers with such a relish. We are nothing if not chivalrous, and many of our lady friends showed their appreciation, in accompanying their husbands and sharing in their enjoyments.

(Dr.) Wm. R. Howard.

Fort Worth, Texas.

Mutual Aid, or Helping Each Other.

The following essay was read at the Texas State Convention held on April 5th and 6th, at Greenville:

It is with pleasure and great joy to me to be blessed with the privilege of meeting so many bright bee-keepers' faces. Let us endeavor to help each other, especially in this our loving pursuit—bee-keeping—and may we each and every one ever be ready to assist each other, and to bear one another's burdens in this great cause of apiculture in the South.

Let us all remember that our Sunny Southland is the paradise of the honey-bee, and I ask the co-operation of all present to assist me in this grand work of building up bee-keeping in the South. Let us know no North, no South, but may we work together as a band of brothers and sisters, and by our mutual assistance may we ever be made to rejoice that we have been the means of helping others along in this work.

In conclusion I ask the assistance of all present to help me in making the department of "Sunny Southland" in the American Bee Journal what it ought to be—a prize and a help to further the cause of bee-keeping in the South.

I wish to state that I would be glad to make the personal acquaintance of every bee-keeper here, and ask you before you leave, to come into my office and give me a shake of your hand. If there are any here that wish to subscribe for the "Old Reliable," I am ready and willing to take your names, and count you one of our band, and for an inducement I am prepared to give you the weekly American Bee Journal for one year for $1.00, and also a 200-page bee-book as a premium. I would be very proud, indeed, if every bee-keeper here would take it, as through its columns I hope to become more and more acquainted with you, and assist you all in my power to make your bees pay, and to give you value received when you read the American Bee Journal.

Jennie Atchley.

A Report from Tennessee.

The past winter was unusually severe, and as the fall crop was remarkably short, many bees died in this locality. I went into the winter with 78 colonies—some of them were nuclei—and have come so far with a loss of only 12. I need not have lost any if I had fed at the proper time, and in sufficient quantity. Several colonies that appeared good and strong last year, and from which I took no surplus, starved out before I knew of their necessities.

Feeding can be done here almost any time, if proper judgment is exercised. As an illustration: When the mercury was dancing around about 6° above zero at night, I knew some of my weak colonies were about gone up, so when the sun came out in the middle of the day, I examined them, and finding one in which more than half of the bees had starved, I gave them a frame of sealed honey, pushing it close up to the cluster. I think there was not more than a quart of bees living at the time. By abundant feeding of syrup as soon as the weather would permit, they have prospered, and are coming on excellently.

FEEDING BEES.

I have tried putting syrup in empty combs, and hanging in the hive, but this is entirely too much trouble. The easiest and quickest way to feed with no special expense for feeders, is to set three or four cheap wooden dishes—such as grocers have to put butter in—upon the top of the brood-frames, put in some grass or weeds for "foot logs" for the bees, and pour in the syrup.

Ordinary porcelain bowls will do if you are sure to press the grass down well, and put in enough for it to fill up and hang over somewhat, for the little "ladies" to climb by. On pouring in a second time, use care not to drown the bees in the bottom of the dishes or bowls.

SYRUP FOR FEEDING.

My experience is that to put a lot of granulated white sugar into a tin bucket, and pour in enough warm water to dissolve it when stirred, makes it a first-class syrup for bees. I have been feeding considerable for nearly a year, and I have never known of its granulating yet. If I am in a hurry, I do not even heat the water.

THIS SEASON—PROSPECTS, ETC.

We had ten days of good weather during fruit-bloom, from about the 1st to the 10th of April; then cold, rainy, windy, and but little chance for work. Two days now bees have done some good work. Locust is beginning to bloom, and I think poplar also, but I have not been to the woods to investigate. I have had only one swarm so far—on the 18th. It weighed 4½ pounds.

Several cold days coming on, I had to feed. On examination this evening I found 3 colonies in destitute circumstances, and ministered to their wants.

I am a bachelor, and somewhat bashful in the presence of ladies, but I must thank the editor for assigning me to the care of Mrs. Atchley. Many perhaps will recall the fact that I was given an introduction to "Sunny Southland" when I wrote some months since.

LEWIS K. SMITH.
Gainesboro, Tenn., April 25, 1893.

Have You Read that wonderful book Premium offer on page 707?

QUERIES AND REPLIES

Honey an Animal or Vegetable Substance.

Query 874.—Is honey an animal or vegetable substance?—W. D.

Both.—S. I. FREEBORN.

Vegetable.—M. MAHIN.

Vegetable—E. FRANCE.

Vegetable.—P. H. ELWOOD.

Vegetable.—DADANT & SON.

I don't know.—C. C. MILLER.

Vegetable.—J. H. LARRABEE.

Vegetable.—WILL M. BARNUM.

Vegetable.—MRS. J. N. HEATER.

First, vegetable.—J. M. HAMBAUGH.

Vegetable, and *not* "*digested* nectar."—J. P. H. BROWN.

It certainly isn't animal, unless bees *make* honey.—EUGENE SECOR.

Largely vegetable, with a small trace of animal substance.—H. D. CUTTING.

The nectar used in producing honey is from a vegetable source.—G. M. DOOLITTLE.

Vegetable. It is the product of a plant, gathered by a bee.—MRS. L. HARRISON.

In so far as it is gathered from flowers, of course it is vegetable.—R. L. TAYLOR.

We will believe it is vegetable until we have evidence to the contrary.—JAS. A. STONE.

A vegetable substance, more or les modified by animal secretions and diges tive processes.—JAMES A. GREEN.

Honey is the inspissated nectar of flowers, and though gathered by bees its origin is vegetable.—G. L. TINKER.

Like the sugar which comes from the starch in our own digestion, I should call it a digested vegetable.—A. J. COOK.

If honey is digested nectar, I *guess* it's an animal substance. When I have digested food it becomes most thoroughly animal.—A. B. MASON.

Honey is in no sense an animal substance. It is principally vegetable glucose. The water and some minor salts are mineral.—C. H. DIBBERN.

Honey from flowers is purely vegetable. Honey that exudes through the leaves of plants, caused by lice, or other insects, may be called "insect honey."—MRS. JENNIE ATCHLEY.

Neither. Honey no doubt is of a vegetable nature. It is secreted by vegetables, and gathered by animals, passing through some changes in the process. Exactly what these changes are is not fully known. Some of us think we know what they are *not*.—EMERSON T. ABBOTT.

Vegetable. It the natural secretion of flowers, gathered by the bees. Whether any chemical change takes place or not in the stomach of the bees while conveying it from the field to the hive, is a mooted question. In no case, however, can it be an animal substance. —J. E. POND.

It is vegetable, pure and simple. Honey is nectar secreted by nectar-bearing plants and trees, collected by bees and evaporated and cured by them. It takes on by absorption more or less of formic acid by reason of being in contact with the heat generated by the bees. This can be proven by evaporating sugar syrup over a strong colony of bees with wire-cloth between the bees and the syrup.—G. W. DEMAREE.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
June 16, 17.—S. E. Kansas, at Bronson, Kans.
J. C. Balch, Sec., Bronson, Kans.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

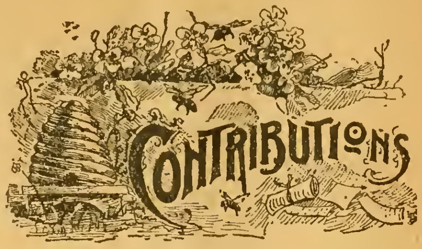
☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.......Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.



Progression in Bee-Culture—Hive-Invention.

Written for the American Bee Journal
BY JOS. E. POND.

Prior to the introduction of the movable-frame principle, the science of bee-culture, although at the hands of the late Quinby, of Langstroth, and a few others in the United States, and of Dzierzon and Huber on the other side of the water, had been decidedly advanced from its prior position, yet so far as the general public is concerned, it was but little understood or appreciated.

The difficulties attending scientific investigation and research were so great, that the large majority had neither the time nor the means of accomplishing anything of lasting value. It is true that some of the principles that lie at the bottom of, and form the foundation to, the business, were partially understood, and to some extent were promulgated, but superstition, prejudice and ignorance on the part of the masses, fostered by a few humbug bee-quacks, had taken so strong a hold upon the minds of the majority, that even a slight step forward was looked upon with distrust; and this is so true, that even when movable-frames were first introduced by our own prince of apiarists, Langstroth, they were looked upon with the same suspicion that they are viewed by the few, who, it would seem, prefer remaining in ignorance, rather than to become educated as they might.

This ignorance and prejudice was fostered, to a great extent, by the fact that every "new thing" in the way of a hive, or of a fancied improvement, was at once covered by a patent, and "farm rights" were hawked around the country, to be found, on investigation after sale, of no value whatever, thus causing the purchasers to lose faith in invention, and their fellow men.

Now, while I myself, as I have many times stated, am in favor of patents, and believe fully that every one should be as much protected in the labor of his brain, as in that of his hands, still I also believe that the application of the patent law as made to apicultural implements, has done much toward preventing advancement in the science of apiculture; and further, I believe that so long as the public are constantly threatened with suits for damages, by those who have secured patents on combinations of old principles of value, in connection with some new feature of no practical value whatsoever, that advancement will be slow, and real progress retarded.

What gave the impetus to bee-keeping as a science? Was it not the introduction of the movable-frame principle? And what really valuable step in that direction has been taken since that introduction? At least what so-called improvement has been made, that has been of any real, positive benefit? I confess I am unable to learn of any. It is true that in some minor points, improvements have been made, but those improvements have not been the result of the working of any one particular mind, but are the aggregation of the workings of many, each contributing a small share in producing the grand result.

The arguments and claims that are being made at the present time, in regard to the actual ownership of this or that feature, seem to be overshadowed in the minds of the people by the query of, What do they amount to, after all? Great claims are made for them, and great results promised by their use; but let us inquire if any better results have ever been accomplished by the use of these much-lauded "patented things," than in the use of the frame hives that have been before the public since the original was introduced by Father Langstroth. If they have, where is the record? I am anxiously looking for it; it has been promised frequently, but the promise is not yet redeemed by fulfilment.

All I can say is, there are now in use many unpatented hives that have recorded better results than I know of being made by those patented of late, and from which we were promised such immense gains. These old hives are the very ones that have been the means of giving the general public that enlightment it now possesses; and until something is offered in their place, with a proved record of superiority, it looks to me like the height of foolishness to discard them for the new, simply because they bear the magic imprint—"Patented."

I write in the interest of no one; I assail no one; I stand on the broad ground of historical fact, and ask—In what have I stated an untruth, or been guilty of endeavoring an error? If I am right in my position, my work is a public benefit; if I am wrong, show me the proofs, and I will retract. Till such proof is offered, I consider that I am but doing a duty in presenting my views to an intelligent public, and am ready to stand by its verdict.

North Attleboro, Mass.

Something About the White Sage of California.

Written for the American Bee Journal

BY C. W. DAYTON.

That renowned California white sage is now (May 20th) approaching an endless sea of bloom, and why the bees do not gather honey from it is a most profound mystery to me. I examined it this morning, yesterday, day before yesterday, and several other times before that, and honey is so abundant in the flowers that I could plainly see and taste it—in fact, there is a small drop in each blossom, and from three to five blossoms would make a good load for a bee.

In all I have only seen two bees at work on it, while this morning, in ten minutes time, I saw four humming-birds and two very large jet-black bumble-bees, and they were very busy, so busy that the humming-birds continued to visit the blossoms right close by me. Ants are also busy on it.

The bees are gathering honey very slowly from wild alfalfa, which is about like heart's-ease in quality, and amber in color. Black or burr sage has been in bloom for some time. The bees work on it considerably, but I can see or taste no honey by examination of the tubes. I believe if my bees were in a location where there was nothing but white sage (and such locations are hard to find), perhaps they would work on it, and they would be able to fill the hives rapidly where it is more a matter of waiting and hoping than anything else to see them fill up from wild alfalfa, horehound, oranges, etc.

If white sage is so beneath the notice of our common honey-bees, and so attractive to humming-birds, bumble-bees and ants, I wonder what *Apis dorsata* would think of it. Several colonies of

Punic bees I know in this neighborhood have the reputation of storing more honey than other bees last season, and I suspect it was from white sage.

That nameless disease, or bee-paralysis, has attacked about 15 of my colonies. In the colonies attacked, the bees all wear yellow stripes, while out of 60 colonies that show no yellow stripes at all, all are healthy and vigorous.

Pasadena, Calif.

Puzzled on Reproduction in Honey-Bees.

Written for the American Bee Journal

BY DAVID K. BRIGGS, M. D.

Having lately caught the "bee-fever," I have read everything in reference to bees with a great deal of enthusiasm, but I have recently run across a statement that sets all the accepted laws of reproduction at variance, that I write for further information and enlightenment on the subject.

On page 16 of "Bees and Honey," in speaking of the egg-production of the queen, the author says: "Each egg, which receives one of the seminal filaments in passing, will produce a worker or queen, while an unimpregnated egg will produce only a drone. The spermatheca of an unfecundated queen contains only a transparent liquid with no seminal filaments, and the eggs of such a queen produce only drones."

Again, on page 462 of the AMERICAN BEE JOURNAL for April 13th, Mrs. Jennie Atchley says: "I noticed that every single queen that became stimulated for egg-laying, never became impregnated, but was always a drone-layer."

It has been generally accepted as a fact that it requires impregnation from the opposite sex before reproduction can take place, be it flowers, insects, animals, etc., and I did not think that bees were an exception to this rule. While intercourse is not necessary for egg-laying, it is absolutely necessary for fecundation. If some one should tell Mrs. Atchley that if she kept no rooster with her hens, that if she would set the eggs they would hatch out all roosters, she would laugh at the idea.

I think that where a queen was stimulated for egg-laying before mating with a drone, that *after* she *had mated* her eggs would be more likely to hatch out drones, than in a queen which had mated before becoming stimulated for egg-laying, as suggested by a theory lately advanced, "that the greater the passion of one of the parents, the offspring would be of the opposite sex."

Blackville, S. C.

[The fact that a queen that has never met a drone may lay eggs which will hatch, was fully established by the great bee-master Dzierzon 40 years ago. It was bitterly opposed for a time, but the introduction of the Italian bee gave opportunity to settle some of the chief points at issue in the Dzierzon theory, and all intelligent apiarists soon gave in their assent. Other points of great interest are involved, and whoever wants to have an intelligent understanding of the subject should not fail to invest 15 cents in the little book containing the "Dzierzon Theory," which can be had at the BEE JOURNAL office.—ED.]

Report of Experiments in Wintering Bees.

Written for the American Bee Journal

BY B. TAYLOR.

Nearly all apiarists agree that successful wintering is one of the most important questions connected with bee-keeping. There is more loss from failure in wintering than from all other causes combined. There has always been much difference of opinion among leading lights as to the real cause of bad wintering. Some apiarists laid the cause to lack of ventilation in wintering-cellars; others, to the over-abundant supply of pollen; others, to poor food—honey-dew, late fall honey; too much ventilation of hives; too little ventilation; and many other fancies have been brought forward.

Lately sealed covers have been brought forward as a great remedy for winter troubles. Books have been printed and widely advertised recommending this new discovery. This new theory was from the first, to my mind, contrary to both theory and practical experience, yet I gave it a thorough trial, only to meet with severe loss.

In the fall of 1892 I resolved to begin a series of more careful experiments in regard to the part the preparation of hives themselves played in wintering. I had, what I have now reason to believe to be a fact, a wintering-cellar as nearly perfect as present knowledge permits, hence any cause of loss would be in the condition of the colonies and hives themselves, and not in the place they were kept. So I resolved to try several plans of preparing the hives for winter.

No. 1.—I prepared 25 hives as follows, and placed them in one division of my new cellar: I gave each colony two sections of my double hive, removing two combs from each section, and leaving eight combs in each. These eight combs were spread to fill the 10-frame hive. The hives were raised two inches from the bottom-board; when all was quiet, a piece of light cotton cloth was spread over each hive, and on top of this was placed a shallow box (3 inches deep) full of sawdust. The entrances at the bottom were left open the entire width of the hive, front and rear. Now, remember these colonies were each left on 16 combs in two sections of a shallow hive, thus making very roomy quarters. Each had large stores of sealed honey, mostly in upper sections. The temperature was about 42°, without 2° of variation.

No. 2.—I next prepared 25 hives exactly as in No. 1, except that the solid hive covers were left on, and then four strips of wood 1/25 of an inch thick were used, one under each corner of the cover, raising it slightly from the hive top, and leaving a little ventilating crevice on all sides of the top of the hives. They were placed in the same apartment of the cellar as No. 1.

In the other apartment of the cellar 20 hives were placed with sealed covers on, just as the bees had left them. The covers were ⅞-inch boards, and the hives were full brood-chambers, holding 10 frames, 8x13½ inches, inside. They were raised 2 inches from the bottom-board, were good colonies with plenty of honey, were put in at the same time as the others, and kept at the same temperature (42°) as the others.

On April 6th, in an article for the *Review*, I wrote this in regard to the groups Nos. 1 and 2:

"These bees have remained quieter the entire winter than any like quantity I ever knew, and I examined them to-day, and they are all alive, and absolutely quiet. There is not a speck of diarrhea on one of the white hives, and there has been less dead bees on the cellar bottom than I have ever had from a like number of colonies. These bees are still in the cellar, and at present it looks like a case of perfect wintering. But it does not prove that they might not have wintered equally well without covers of any kind, and with less work in preparing."

At the time of writing the above, there was a day or so of fine weather, and I commenced to move my bees from the cellar to the summer stands, but had the good luck to only get out 10 colonies the first afternoon; the next morning the weather turned cold and stormy, and continued so until April 20th, when snow fell to the depth of 15 inches, and from that day until May 8th there was not a day in which I could safely put out the bees.

Let me here say that in my article of April 6th I reported, in mentioning the 20 colonies with sealed covers, "They have been more restless than those covered with porous covers, the hives are damp and and unsatisfactory, and more bees have flown to the cellar floor."

Early in May I became alarmed for the safety of my bees, the weather continued so cold that I dared not put them out, and I found several dead, but they continued very quiet, without the least sign of diarrhea, and on May 6th I began to put them out. As those lots Nos. 1 and 2 were very quiet, I began in the south half of my cellar in which the 20 colonies were. There were also some 50 colonies in this part in double hives, of my old double brood-chamber style, with combs only 4½ inches deep; the covers on these were raised slightly with thin strips of wood like group No. 2. We found these bees in good condition, but about 10 per cent. were dead from starvation.

We next went to the hives with sealed covers, and 19 out of the 20 were dead. The hives contained stores in plenty, but the hives and stores were soaked with water, and combs nearly rotten with mold—nearly the whole colony of dead bees were on the bottom-boards, in a stinking, disgusting mass.

The weather continued fair, and on May 8th we began to remove group No. 1 to the new house-apiary. These colonies had about 5 per cent. loss by starvation, but the bulk of them, seeing they had been confined without a flight for six months and four days, were all that any one could wish; the hives and combs were dry and clean, many of the bottom-boards were nearly as clean as in summer, the bees were so bright and so still that we carried all of the 24 colonies that I put into the house-apiary without closing the wide entrance in either front or rear, and I believe without a single bee taking wing, and some colonies remained several hours before they found that they were at liberty.

We found group No. 2 with board covers slightly raised, in about the same condition as No. 1, except I must confess, in just a little better condition taken as a whole. The hives, combs and bees were all one could ask, and speaks volumes for top ventilation. I never removed all these hives from the cellar until May 12th, but found the colonies all right at that date.

This seems too late in the season to expect good results, but as the willows, boxwoods and soft maples are just coming into bloom, and as clover is booming on every hand, the people at the Forestville apiary are cheerful and full of confidence for the future of the honey-business. The 12 colonies in the small house-apiary had 2 dead that were entirely out of stores. The colonies with enough honey wintered in the past most trying of winters (in which they never flew from the hives for 4½ months) in a more perfect condition than colonies in the cellar; the hives, combs and bees were without dampness or mold, and some of the bottom-boards entirely clean of dead bees.

I can say I believe truly that I lost 19 colonies the past winter in farther testing sealed covers. I first thought they had starved, but we have just finished cleaning up the hives and combs, and found every hive with an abundance of sealed stores.

I have long believed that the proper preparation of the hives for winter is the key to safe wintering in a good cellar, and I am thoroughly convinced that except to keep out mice and other intruders, hives with the covers entirely removed, or with a single thickness of burlap or cotton sheeting spread over the hives, is better than any cushion or cover of any kind. My next choice is building paper; with this I have not a single fault to find, except the trouble of putting it on, and if I were going to use tight covers, I would perfer it to the best absorbent cushion you could make, with any material that I am acquainted with.

I visited a bee-keeper at Dover, Minn., last March, who has been very successful in wintering bees. He leaves the hives entirely without covers. For full particulars of this visit, please see the *Bee-Keepers' Review* for May, 1893, page 129.

I saw in a late number of *Gleanings* that Mr. Foster, of Mt. Vernon, Iowa, has been visiting an Iowa bee-keeper that has been very successful in wintering bees with a single thickness of cotton sheeting spread over the hives; and those that have read the early writings of Mr. Quinby, remember that before he adopted the movable frame he wintered his bees in box-hives in a dark room, the hives being turned upside down, and left entirely uncovered, and I do not believe there is a better plan to-day.

This may seem a long report on wintering, to make at this time of the year, but I have just received a letter from a Minnesota bee-keeper who has lost all his bees—253 colonies — this winter, and I am convinced that 75 per cent. of all the bees in this section are dead today, so you see wintering is a vital question, and there is no better time to impress people with it, than when they are feeling their heavy losses.

Forestville, Minn., May 13, 1893.

Destroying Moth-Millers--Quack Bee-Keepers Described.

Written for the American Bee Journal

BY R. C. HATCH.

I think I can positively say from experience that the Italian bee is moth-proof, after having kept Italian bees in Illinois for five years, and never had the least particle of trouble with moths, even in weak or queenless colonies. It is natural to suppose that moths should be more prevalent in certain localities, considering the surroundings, that is, whether bees are kept for profit by apiarists, as in Illinois, or as they are kept here in Iowa by Tom, Dick and Harry, in the back garden, where one to six empty hives are left to breed moths every summer.

Black bees are kept almost entirely here, and although they are good honey-gatherers, it is one continual source of trouble to keep the moths out; whether it is the negligent surroundings or the black bee, I have as yet been unable to ascertain.

There are a number of ways of ensnaring the moth-millers about the apiary. Although they may not be very practical, large numbers of them can be exterminated in the following way with but little trouble:

Fill a jar about two-thirds full of water, and sweeten it with a little sugar, or maple sugar is better; set it out among your bees after dark. It will attract them, and when once in the jar of water they are yours.

Another way is to set a torch among your bees after dark, in such a position that it will shine on the back of the hives. This will also attract the millers.

Still another way is to set two boards up edgewise, half an inch apart at the bottom, and tight together at the top. Set it in some shady place near the apiary, and if old boards are scarce about the apiary, you will find the pests secreted in the trap.

But those apiarists having Italian bees I think will not have to try these methods of exterminating moths, as the bees will take care of them. I hardly think it worth while, in my case, to attempt to ensnare the millers, as for every one I would trap my neighbors would rear five, which looks discouraging in the beginning, and would likely turn out so in the end. There are quite a number of old bee-keepers in this vicinity, and they really are old bee-keepers indeed, they being old-fashioned as well as behind the times. Most of them are thoroughly versed in bee-keeping (in their estimation), and they can tell their theories and experiences, but don't care to hear yours. They use the same kind of hives their grandfathers used, which everybody knows is a common box with sticks through the center; for, as my neighboring apiarist said, "They have been thoroughly tried and proved a success."

My neighbor had three times as many bees as I last spring, and I got more honey from one colony than he did from his entire apiary. His management of bees is about this:

He makes not less than three raids on them during the season, his first adventure being to sneak upon them some warm day in the spring, when they are having a flight, in order to count them, which he generally succeeds in doing. He then lets them alone until they have nearly swarmed to death, and the honey season is about over. He then concludes it is about time to put on surplus boxes, which he generally succeeds in doing with more or less stings. I can generally tell when he has been putting on the surplus boxes, by his disfigured countenance. Much depends upon how his smudge of sulphur and rags works.

His last, but not least, grand final raid is to harvest the crop, which is quite a peaceful affair. He makes it an object to wait until it has frozen up, and then his bees are quite gentle and harmless. I never heard of his selling any honey, there being two pretty good reasons why—first, his honey was not put up in salable packages; and, second, he seldom found enough to pay to try to sell. But nevertheless I will take mine in scientific bee-keeping, with the rest of my apiarian friends.

Central City, Iowa.

Nucleus Method of Replacing Winter Losses of Bees.

Written for the American Bee Journal

BY C. E. MEAD.

The eggs hatch by heat of the bees, therefore the warmer you can pack them the more eggs they can care for. Colonies of only two or three frames of bees may be made to increase rapidly by placing a division-board in confining them on the number of frames they cover, leaving the other frames in the hive, and allowing space under the division-board for the bees to pass under and get the honey. If there is no honey, put in some sugar syrup, and keep the entrance small. Place an oilcloth on top of the frames and division-board, so the heat cannot go over the top of the division-board. You will have to move the division-board as often as once a week.

My Langstroth frames average about 8x12 inches of brood, which will average about 50 bees to the square inch, or 4,800 bees to the comb. That number will more than care for two combs, so they double as often as every ten days, in geometrical progression, until the capacity of the queen is reached.

In an average season, with the above treatment, a two-frame nucleus put into a hive of combs will have it full of bees by linden bloom, if put in on June 1st, in this locality.

I had, one year, two one-frame nuclei, each one of which filled a two-story hive, and one swarmed three times, and the other twice.

Do not be discouraged; work for a big yield this year, as it should be a linden year in Illinois.

I like wide frames best to get bait sections early. In a 10-frame hive seven brood-frames and two wide-frames, the two wide-frames give 16 sections; when well started, place in the super above, and put in their place empty frames, foundation, combs, or dummies, according to the strength of the colony.

Wide-frames should be put on the outside, with a frame of capped brood next to them, the combs of young larvæ and some empty ones to be put in the center.

Chicago, Ills.

An Experience Extending Over Several Years.

Written for the American Bee Journal

BY MATH. RADER.

In the spring of 1887 I received a colony of bees in an 8-frame Langstroth hive from a friend of mine. The colony cast two swarms during the summer, of which I kept the first, or prime swarm, only; the second swarm being returned after the queen-cells had been cut out of the parent colony, as directed by my friend.

By fall the two colonies had gathered about 50 pounds of surplus honey, and had plenty to winter on. I then bought 6 colonies more, all of which I wintered, and commenced in the spring of 1888 with 8 colonies in good condition. I increased them to 17 during the season, and secured over 800 pounds of very nice comb honey in one-pound sections, as basswood, or linden, had lots of honey that year, and, besides, the bees had enough winter stores to carry them through without any feeding. After this the dark side turned towards me, in regard to basswood giving honey.

In the spring of 1889, I took the 17 colonies out of the cellar in good condition except one, which was queenless. I at once ordered a queen from Texas, and strengthened the colony with brood from others, until the queen arrived. That year was the first poor honey-flow, white clover was very scarce, and worms, or caterpillars, commenced that summer to destroy the forest leaves and blossoms on basswood trees, and the 17 colonies gave me only 6 prime swarms, and about 600 pounds of honey, which was mostly dark or fall honey, and they were short of stores the next spring, so that I had to do some feeding.

In the spring of 1890 I took the 23 colonies out of the cellar in good condition, but one being queenless, which I united with another. I then started with 22 colonies, and with good courage. The beginning of the honey-flow from fruit-bloom was good, but white clover was scarce yet, and the basswood a total failure, as that was the first year that the caterpillars destroyed all the leaves on basswood, and also the blossoms, so that not an ounce of basswood honey could be expected in this neighborhood; but the bees had swarmed quite early, and I increased them to 36 colonies, but received only about 350 pounds of comb honey from the 36 colonies, fall count, and had to do some feeding to some colonies to carry them through the winter, and had to do lots of feeding in the spring to keep them in good condition, as I thought that the poor years would be over, and had learned from my books and journal that this was an important thing to have the bees strong when the honey harvest opened.

I took out the 36 colonies in the spring of 1891 in good condition, not having lost a single colony, and started again with good hopes. I increased my apiary to 53 colonies, as fruit-bloom and clover was quite good for the beginning, but as our main honey-source should commence to come into bloom (the basswood)—alas, there was no prospect at all to get one pound of basswood honey, as the leaves were all destroyed by the worms, so that our woods looked a good deal as in the fall, with hardly any leaves on any kind of trees, and I was cruel enough to take all the honey I could get from the bees—about 700 pounds in all—which they gathered in the fall, and when the honey-flow was over, my bees were short of stores for the coming winter, and I had to feed over 250 pounds of granulated sugar syrup to get them through the winter, but had to see that I had not supplied all of them to carry through the winter, and found, on putting them out of the cellar in the spring of 1892, that four had starved, and two were queenless, which I united.

I will now try to tell how I managed the 48 colonies that I had left, in the season of 1892, which was a better year for me than the three foregoing, but I did not want any increase on account of the previous year, when the caterpillars destroyed the basswood blossoms.

Those colonies that swarmed at the beginning of the clover honey-flow (which was quite late on account of the rainy weather we had last spring) I took out four frames of the parent colony, which were mostly sealed brood, and put into a hive with some bees, and put the hive with the four frames on a new place, then all queen-cells were cut out of the four frames that were left to the parent colony, and I placed four frames full of foundation in place of the four removed, and the swarm was returned to the parent hive.

Later on I tried several swarms by taking only two or three frames of brood from the parent colony, cutting out all remaining queen-cells and filling the vacant places with frames that were wired and filled full of foundation, and the swarm was returned to the parent hive, and most of them also went to work and did not swarm any more that season.

Others I hived in a new hive, gave them one frame of brood and eggs in all stages, 2 or 3 drawn-out combs which I had from previous swarms that I had kept queenless after they had swarmed, and the young bees shaken off the frames every few days, wherever they were needed the most, the remaining places filled with frames full of foundation, the surplus sections removed from the parent colony, and put on the new swarm with two or three sections with drawn-out comb, which I had saved from the previous year, and also a queen-excluding honey-board between the hive and the sections, especially where no empty combs were in the hive by hiving the new swarm; and the new swarm was hived in the new hive so prepared, then the parent colony removed from its stand about two feet towards one side, and the new swarm put on the old stand. The parent colony was kept queenless by cutting out all queen-cells the fourth or fifth day after they had swarmed, and removed the hive towards the new swarm on the old stand so that they stood close together; after some days then put to the other side of the new swarm, and kept up moving from one side to another until the bees were all hatched and in the hive with the new swarm, and the bees worked very hard as far as I could see.

The empty combs were used to hive other swarms on, but not more than two or three empty combs were given to a new swarm.

At other times I hived two prime swarms in an empty hive with the sections on from parent colony and then put it on one of the parent stands where one of the swarms had come from. Those hived that way also staid without swarming again, but I doubt whether all these plans will work as well every year as they did last year, as the clover honey-flow was quite late here, although we had lots of white clover in bloom, but the weather being so rainy the bees could not work much the first part of the season. There was honey in the bloom, as the bees were just booming on it when we had a few nice days, and it kept in bloom until late in the fall, so that we got quite a lot of white honey last year. Basswood had not been damaged much by the worms, but did not bloom as nicely as years ago. Bees did not work on it more than two or three days, when it became very rainy, cloudy and cold for a few days, so that bees did not leave their hive, except a few hours in the middle of the day, and did not gather much honey from basswood.

However, I will not complain, as we got about 50 pounds per colony, spring count, of which 500 pounds was extracted, and the balance nice, white comb honey in one-pound sections. Our bees were very heavy with stores when put into the cellar last fall—some of them heavier than I wanted to have them. Some of them had over 35 pounds of honey when put into the cellar on Nov. 17th.

In regard to wintering bees in the cellar, I may say that I have never had the least trouble to get them through the winter in that way, as I have not lost one colony in wintering, except having a colony or two queenless, and four starved last spring. We keep the bees in the cellar under the house, and have potatoes, sauer-kraut, salt-pork and vegetables right beside the bees in the cellar. The only ventilation is a 3-inch pipe through the floor into the chimney. We keep a stove in the cellar, but have never been very particular to keep the temperature always the same, and not nearly as high as recommended in bee-books, although it is kept as near 40° as possible. The bees wintered very nicely the past winter, although we had very cold weather.

I would like to hear from the prominent and experienced bee-keepers as to what they think of my plan of handling bees the last season, especially hiving two prime swarms in one hive on the old stand. Does it really pay better, all other things considered, than to hive them separately, and take the comb honey, if only a little, extract from the brood-nest in the fall, and destroy the bees if not needed or wanted?

I would also be glad to hear from some Minnesota bee-keepers, whether they have had the same trouble with the worms destroying the basswood blossoms, and whether they have kept it up for many years. People in this vicinity claim that the worms were moving, and would be gone, while others claim that the wet and rainy weather kept them back last year. Probably bee-keepers in other States have had the same trouble, and could inform us how they got rid of the worms, as we have an abundance of basswood in this neighborhood, and I would be willing to increase my apiary a good deal if I could be sure the worms would leave us.

Raven Stream, Minn.

LETTER BOX
REPORTS & PROSPECTS &c.

☞ **Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.**

After-Swarms—Preventing Them.

On page 648, in an item on "Preventing After-Swarms," by Mr. Doolittle, is this statement:

"In this way we can make sure that no swarm will issue after the first from this hive, and it is the only certain plan I know of."

Now, my experience of 25 years as a specialist in the bee-business will not admit of my endorsing that statement. I will admit that it is the rule, but there are so many exceptions to the rule, especially in a good swarming season, that it cannot be depended upon.

In seasons when the swarming fever runs high, I would go a little farther than Mr. D. does, and destroy every queen-cell, thus making them hopelessly queenless for two days; then give them a ripe cell or virgin queen. The rule given by Mr. D. has no exceptions, I think, with the black bees; but the Italians are not so easily controlled.

Independence, Mo. A. A. BALDWIN.

A Trip to New Mexico, Etc.

The weather has been very bad for bees here, rainy, cold, and windy; but there is a prospect for white clover, which is beginning to bloom, if we don't have too many hard rains that will wash all the honey out. I have three new swarms. I expect to take a trip to New Mexico this fall, and would like to hear from some of the readers of the BEE JOURNAL who live on the Texas Pacific, as I might give them a call. EDW. SMITH.

Carpenter, Ills., May 26, 1893.

Late Season—Strengthening Bees.

I fully believe that bees are one month behind of what might be called an early season. Mr. Doolittle need not think he is located in the coldest locality on earth.

I am only tending six colonies, and they are far behind an average season, so far as strength is concerned. One of them would have died from spring dwindling if it had not been strengthened by giving it young bees from other colonies.

I have mentioned this subject in the BEE JOURNAL in the past, but deem it of such great importance that I wish to do so again: Smoke each colony, and remove a frame of hatching brood from the strong one, taking care not to get the queen (if you have no queen-excluder to place at the entrance of the weak colony), and shake the bees at the entrance of the weak colony. The old bees will return to the colony taken from, but the young ones will remain with the weak colony.

Colonies that have but a handful of bees, and are too weak to care for brood if given them, may be saved by this treatment.

I am pleased to see so much interest taken in *yellow* Italians. They are the kind for me, and not only yellow, but *evenly colored to the tip*. I prefer a very dark one, if evenly colored, than a yellow one with a black tip. J. H. ANDRE.

Lockwood, N. Y., May 15, 1893.

The Sugar was All Right.

I sent some of the sugar mentioned on page 633, to Prof. Cook for analysis, and received the answer, which I enclose.

Linwood, Mich. ANDREW GIRARD.

Here is Prof. Cook's report on the analysis of the sample of granulated sugar sent him by Mr. Girard:

The color is due to marine blue, which is added to make the sugar white. All our granulated sugar contains it. It is entirely harmless. A. J. COOK.

Fine Weather—Season Promising.

We are now having fine May weather, and the honey-flow from poplar and white clover is just beginning. From some cause poplar and white clover came together this year—something a little unusual in this locality. Poplar usually precedes white clover, but Dr. Miller's explanation as to the early blooming of dandelion will perhaps apply to white clover; that is, that the snows in the winter protected, or rather encouraged clover, which makes blooming earlier.

The season promises fine, but as predicted by me some time since, bees have failed to get as strong as they should be at the opening of the honey-flow. H. F. COLEMAN.

Sneedville, Tenn., May 13, 1893.

Queen-Cells Over Drone-Eggs.

I am going to contradict some of the "big guns" just to see how it goes to get under the fire of a whole battery of them at once.

In reply to Query 868, Dr. Miller says bees will not use drone-eggs to start "queen-cells" if they have others. Now, Doctor, just you get a queenless colony right anxious to build cells, then give them some frames of eggs, among which are some drone-eggs in *new* comb, and if they do not build cells over some of them, I will admit that I "don't know" anything about queen-rearing.

At the bottom of the column Mr. Doolittle says: "A queen-cell is *never* built over anything but a larva." Now, Mr. Doolittle, do you remember of sending me a queen in 1891? Well, after she got to laying, I put a frame of foundation in the middle of the brood-nest, and kept watch of it, and in 24 hours after she began to lay in it, I took it out and gave it to a hopelessly queenless nucleus to save until the larvæ would hatch; 24 hours later there were *over 40 cell-cups built* on that sheet of foundation, and each contained *an egg;* but by the time the larvæ had hatched, the bees had destroyed all but about a dozen; this was probably because there were only a quart of bees in the hive.

Now, I want to know what *kind* of comb Mrs. Atchley's bees built in that empty frame that she put in the brood-nest when the bees were working in the sections? See page 525. Such an operation *here* would *surely* result in a drone-comb, unless it was a newly-hived swarm not over three weeks old. S. F. TREGO.

Swedona, Ills., May 4, 1893.

Hiving Swarms in Full Hives.

Last November I packed away 49 colonies, and on April 1, 1893, I put out 48, all in good condition. Being a beginner of three years' experience, I thought I had the bee-business to perfection; but, alas, on May 1st I changed my mind. I looked them over, and found 18 dwindled down, so I united them, putting as high as seven into one, then not having a good colony. Some of my neighbors did not unite theirs, and have lost all they had.

April was very changeable in this locality; bees would start out in search of stores and never return. To-day is fair weather for them to fly, and they are carrying in pollen. I have 30 colonies left, and 18 hives full of honey and pollen without bees.

Now will some one be kind enough to tell me what the result will be if I hive my new swarms in those hives, just as they are, leaving the hive full of honey and pollen? J. W. MILLER.

Rodney, Mich., May 15, 1893.

Lost All but One Colony.

We had a very long and cold winter. A good many of the bees died. I started in the winter with 13 colonies, and I now have one. They had plenty of honey—from 7 to 40 pounds—except one. They kept dying from the middle of January to the middle of March. On April 1st I had two good, strong colonies that commenced to carry in pollen on March 30th, and did well until about the middle of April, when it turned cold and snowed, and we have had bad weather ever since, only a day now and then that bees could get out.

On May 9th they began to carry in pollen again, and I noticed one colony was not as strong as it was before the cold spell, and yesterday (May 11th) there were no bees flying in one hive. I opened it, and there was not more than 8 or 10 bees in it, and no brood. The hive was clean, no dirt or dead bees in it, and I judge about 25 pounds of honey. Where they went I don't know. Bees died in chaff hives here as well as in single-walled hives.

The BEE JOURNAL never fails to come on time, and I will say without fear of contradiction, that it is the best bee-paper printed in the United States. H. T. LATHROP.

Bidwell, Iowa, May 12, 1893.

How the Bees Wintered.

I notice on page 598 is published the article I wrote about two months ago from Virginia. On my return home, April 12th, I found 4 of my 53 colonies dead—one from starvation, with honey in the hive; the bees were separated from their stores, and probably died during a long cold spell. One died of diarrhea, and two of dwindling. Since that I have lost three more by dwindling; thus I have lost 7 out of 53, which is not bad, I think, as we had a long, cold winter.

Of the seven that died, six were in double-cased packed hives, and one in a single-walled hive. Thus my loss was far the greatest in packed hives, and this has been the result of my experience for the past few years, and now my strongest colonies are those that were wintered in tiered-up hives two high, each with combs in, and no outside protection.

Bees are promising well here at present. No fast-bottom hives, and no chaff-hives for me. I have tried them.

CHESTER BELDING.

Middletown, N. Y., May 15, 1893.

Bees Booming—Doubling Colonies.

The bees are booming lately. One splendid swarm, after Nature's method, and one different from any plan yet named. I was a month getting this swarm. If the thing doesn't die in the borning—if it "pans out" well—then sometime I'll tell what kind of a caper I perpetrated on the bees.

How's this? Doolittle and R. L. Taylor are so near the top of the apiarian ladder that if they were to be pushed any higher they'd slip off the top. And yet the one (the latter) says double-up weak colonies in the spring about ten days before the expected honey-flow; and the other looks upon this practice with hesitancy and misgivings. Which is right? Which shall we follow? It is plain to me that Mr. Taylor's plan will work here in this hot locality—near Cincinnati. But as to doing so at Lapeer, must give us pause.

Has any one ever peeped it that bees *always* prefer to enter their hive at the right hand as you face the hive? So Mr. Alley's drone and queen traps should all be made with a *left-hand* slide for portico hives.

DR. ALBERT SAYLER.

New Palestine, O., May 22, 1893.

Great Premium on page 709!

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, June 3rd, 1893:

CHICAGO, ILLS.—Honey is about cleaned up so far as fine comb is concerned. Quite a good deal of poor to fair is on sale, prices ranging from 13 to 15c. Fancy would bring 18c. Extracted, 6@8c. Beeswax, 25c.
R. A. B. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.
Beeswax—20@23c. C.-M. C. C.

CINCINNATI, O.—A short supply of extracted honey is the cause of a slow demand. It forbids an effort on our part to sell. It brings 6@8c. There is no choice comb honey on our market, and prices are nominal at 12@16c., in a small way.
Beeswax—Demand good at 22@25c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—Comb honey is well cleaned up. Fancy white is selling at 14@15c. Off grades, 12@13c., and buckwheat, 9@10c. Extracted is dull, and the market well stocked with West India honey, which sells at from 68@75c per gallon. Beeswax, 26@28c,
H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality, 1-lbs. Beeswax is neglected at 22@23c. S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 6@7c. No beeswax on the market. H. & B.

CHICAGO, ILL.—Fancy stock is very scarce, with plenty of inquiry, with good prices offered for same. It sells readily at 18c.; No. 1 comb, 16@17c. Dark sells slow. White extracted, fair supply, with good demand at 8½; dark, 6@7c. Beeswax—23@25c. J. A. L.

BOSTON, MASS.—Honey is selling slow and prics are lower. Best 1-lb. comb, 16@17c.—Extracted, 8@10c.
Beeswax—None on hand B. & R.

ALBANY, N. Y.—Honey market is very quiet now, as between seasons. Beeswax—at 30@32c. for good color. H. R. W.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white conb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

* * *

Bicycles are getting to be very common now-a-days. We have two for sale, and any one wanting a bargain in a good bicycle, should write to the office of the BEE JOURNAL.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.
F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN,
28 & 30 West Broadway

San Francisco, Calif.
SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.
J. A. SHEA & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.
HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.
H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.
CHAS. DADANT & SON.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

* * *

Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the BEE JOURNAL for one year, for $1.15.

* * *

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED to sell eggs from fine laying poultry. 50 cts. sitting. Write me.
G. E. SMITH, Longmont, Colo.

TO EXCHANGE—High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

TO EXCHANGE—New Cowan Extractor for choice extracted honey.
22A2 J. H. & A. L. BOYDEN, Saline, Mich.

BARGAINS—Harbaugh stock. Lang. Brood Frames, 50c. per hundred in 500 lots. Imp. L. S. Supers, $3 for a crate of 25. Only a few at these prices. E. T. ABBOTT, St. Joe, Mo.

Speaking of Family Story Papers, a well-known writer once said that the *Family Ledger* published in Los Angeles, Calif., is, without question, the cheapest and best printed illustrated family weekly in the world. Over 60 complete serials are run in a year's issue. The paper has many copyrighted features, and is illustrated each week. To those who are unacquainted with this remarkable periodical, a special offer is made of 10 weeks for 10 cents. Few that read story papers will allow an opportunity to pass whereby they can secure so unique a paper for such a small sum.
18C3t

Convention Notices.

KANSAS.—There will be a meeting of the Southeastern Kansas Bee-Keepers' Association on June 16 and 17, 1893, one mile west of Bronson. All are cordially invited to be present. J. C. BALCH, Sec.
Bronson, Kans.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present. but a special invitation is extended to friends of apiculture it every foreign land. FRANK BENTON, Sec.
Washington, D. C.

"The Winter Problem in Bee-Keeping" is the title of a splendid pamphlet by Mr. G. R. Pierce, of Iowa, a bee-keeper of 26 years' experience. It is 6x9 inches in size, has 76 pages and is a clear exposition of the conditions essential to success in the winter and spring management of the apiary. Price, postpaid, 50 cents; or given as a premium for getting one new subscriber to the BEE JOURNAL for a year. Clubbed with the BEE JOURNAL one year for $1.30. Send to us for a copy.

Amerikanische Bienenzucht is the name of a bee-book printed in the German language, which we now have for sale. It is a hand-book on bee-keeping, giving the methods in use by the best American and German apiarists. Illustrated; 138 pages; price, postpaid, $1.00. It is just the book for our German bee-keepers. We club it with the BEE JOURNAL for one year, for $1.75.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

Circulars have been received as follows:

H. P. Langdon, East Constable, N. Y.—Non-Swarming Arrangement.

S. L. Watkins, Grizzly Flats, Calif.—Strawberries.

C. H. Hare, Pawnee City, Nebr.—Bee-Keepers' Supplies and Italian Bees and Queens.

G. H. Grimm, Rutland, Vt.—Maple Syrup.

"Bees and Honey"—page 707.

Advertisements.

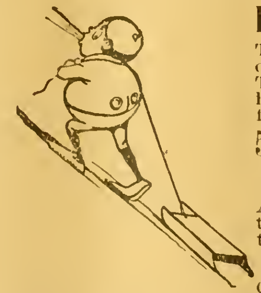
—CROSSMAN HAS THEM—

Those Beautiful Golden Queens

Reared from the best 5-Banded stock. **Unexcelled for Business, Beauty and Gentleness. Satisfaction guaranteed.**
Warranted Queens, after June 1, 90c. each; $9.00 per doz. Tested, $1.50 each; Sec. Test., $2.50. Safe arrival insured. Send for Circular.
W. P. CROSSMAN, Ballinger, Tex.
8A26t *Mention the American Bee Journal.*

50 Second-Hand Hives.

I WILL sell 30 New Heddon and 20 L. Simplicity hives. Frames filled with good straight combs, mostly wired, containing from 5 to 15 lbs. of honey to the hive. Price. of Heddon. $3.50, and L. Simplicity, $2.50 each. A discount of 5 per cent on orders for 20 hives and upwards. Will exchange for First-Class Incubator; Eggs for Hatching. of B. Leghorn and B. Plymouth Rock fowls; Italian queens, or a Spraying pump, as part pay for hives.
A. WORTMAN,
22A2t SEAFIELD, White Co., IND.
Mention the American Bee Journal.



It's Hard Work

To keep up with orders this spring. The last three days have brought Orders for 33 of those

5-Banded Italian Queens

And 20 of them go to parties who have tried them before. Get your order in soon, if you want Queens this month. After this month I can ship promptly. I guarantee entire satisfaction, as described in my Price-List.
One Warranted Queen, $1.00; 6 for $5.00.
Reference- G. W. York & Co. Money Order office, Cable, Ill.
S. F. TREGO, SWEDONA, ILL.
Mention the American Bee Journal.

ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA.

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., DEC. 14, 1893. NO. 24.

EDITORIAL BUZZINGS

Prof. Cook started for California last week, and likely will soon be settled in his new home at Claremont. While we at this writing are enduring a temperature around zero, he is fast approaching the land where are sunshine and posies nearly the whole year round. We learn that a "right royal welcome" awaits the Professor, which, no doubt, he will greatly appreciate.

* * *

The Long Winter Evenings is just the time to "read up" on bee-keeping. Look over our book list on the 3rd page of this number of the BEE JOURNAL, and then order one or more books when renewing your subscription. Our book clubbing offers are found on page 741 of this issue also. Look it over now, before you forget it. It will pay you.

* * *

Bro. J. H. Larrabee is suggested by *Gleanings* for the position of Superintendent of the Vermont Apicultural Experiment Station, recently established. We second the nomination of Bro. Larrabee, and heartily agree with Bro. Root when he says of Bro. L., "He is eminently qualified by experience in this very line." Besides, the last syllable of his name is so appropriate—Lar-ra-*bee*. We hope he will be appointed.

Comb Honey in the U. S.—Some time ago *Gleanings* thought that possibly a very close estimate of the amount of comb honey produced in a year in this country could be obtained if it were known how many sections were sold by the various manufacturers in that year. Bro. Root now suggests that all the manufacturers soon report their sales for 1893. For several good reasons, he also has appointed Dr. C. C. Miller, of Marengo, Ill., to receive the reports from the various section-makers, as soon after Dec. 31, 1893, as possible. Dr. Miller is to keep all reports to himself, and "after making up the sum total, he is to have full latitude to estimate various shrinkages, and from that compute the number of pounds of honey."

Of course, the result cannot be anything very definite, but, after all, the outcome is bound to be more or less interesting. We hope that all the manufacturers will send in their reports as requested above, remembering not to include any sections shipped to foreign countries. Also, don't forget that Dr. Miller is to keep all reports *strictly private*, so no one need hesitate to send him the exact number of sections sold, no matter how few the number.

* * *

Bees and Fruit-Growers.—The ignorant and prejudiced members of the fruit-growing fraternity have frequently made war upon the bees, claiming that they were an injury to the fruit industry. In the following, from Bro. Geo. W. Brodbeck, of California, we find that the more observing and intelligent fruit-men are beginning to wake up to a realization of the great benefit bees are to their pursuit:

FRIEND YORK:—The California State Fruit-Growers' Association has been in session here this week, and being interested to some extent in fruit-culture, as well as bee-culture, together with Mr. McIntyre (who was a delegate), we heard much of interest to fruit-growers, and, at its close, something that caused us bee-keepers to prick up our ears and listen with close attention.

The subject was "Fertilization." A gentleman stated that he had a friend in this State who started into fruit-growing several years ago, locating 35 miles from any fruit-growing section, or where any bees were located. The first year that his trees blossomed, and in expectancy of at least some returns from his orchard, what should be the result but complete failure! He was advised to procure some bees to aid in the fertilization of the blossoms, and since then his orchard has been productive.

The fruit-growers in some sections of this State are antagonistic to bee-keepers, and are doing their utmost to crowd them to the top of the mountains, so you can judge of how much interest such evidence as this is, and coming from a representative body of intelligent fruit-producers, whose sole interest as a class is fruit-growing, it comes with such force that even a skeptic ought to stop and consider this evidence of benefit to fruit-growers by the bee.

There is another point that the skeptic seems to lose sight of in his pungent antagonism to the bee-industry, and that is to jump at conclusions without investigation; and it does seem to me that were the injury as some claim by the bee, admitted, it would be just and right to also consider the benefit derived, and then weigh the two in the balances, and if the benefit derived exceeds the injury, then decide in favor of the bee.

We are just on the eve of a revolution along this line, so we look forward to our *new accession* (Prof. Cook) as a mighty host in our struggle against opposition.

Geo. W. Brodbeck.

Los Angeles, Calif., Nov. 25, 1893.

The more we can have of such testimony as the above, the sooner will be ended the foolish opposition to bees in fruit-growing districts everywhere. It has frequently been proven that bees are an invaluable aid to the best fertilization of blossoms, and thus often insure a bountiful harvest where without their help there would be failure and discouragement.

How long will blind ignorance and unreasoning prejudice continue to oppose the fruit-growers' best friends—the bees? Oh, that we had more devoted and conscientious helpers like Prof. Cook, to down forever the malicious opposition and persistent foolishness of those who would destroy so generally beneficent an industry as bee-keeping! May the day be hastened when men will cease to stand with backs toward the light, thus compelling themselves to look and walk in the shadows before them; but may they turn, facing the light, and so walk and see in the light instead of the darkness.

◆

Bro. Stilson, of the *Nebraska Bee-Keeper*, feels much elated over Nebraska's capture of apiarian awards at the World's Fair. He says: "Nebraska secures as many awards with our small appropriations as some of the Eastern States with their large appropriations of money and piles of honey." You're right, Bro. Stilson; quality, not quantity, was what the Judge of the apiarian exhibits wisely considered. That makes the honor so much the greater for a winner of a medal.

◆

Bro. Doolittle, some people think, was wrongly named. Certain it is that the name is far from denoting the amount of work he does. Some one in last *Gleanings* suggests calling him "Doomuch," which would indeed be very appropriate, though Bro. D. might object. Here is the way the suggestion is made:

"Doolittle is his name,
And widespread is his fame;
For as to bees, not one
Can beat what he has done.

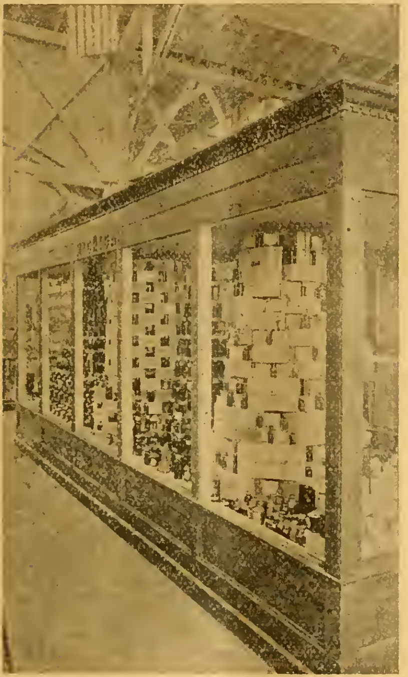
"So let us change the name
To which by birth he came:
Let's call—why, don't it fit?—
Doomuch him by merit!"

◆

Apicultural Discussions, when properly conducted, are eminently helpful to all who will follow them up by carefully reading them. In this issue of the Bee Journal (page 759), Mr. S. Corneil takes up the subject of the cause, or origin, of foul brood, and discusses it from a scientific stand-point, and in a way that will interest many. To some of our readers the discussion of the subject of foul brood is of great importance. Many have had reason sufficient to keep them on the lookout for anything new about this matter, that shall help them to either prevent or cure the malady. We have several other articles on this subject, and we look for an unusually entertaining and instructive debate upon it during the winter months. We hope that all the debaters may stick to actual facts and experience, rather than attempt to advance theoretical opinions, or drift into any personalities.

The Michigan Honey Exhibit at the World's Fair, as we have before stated in the BEE JOURNAL, was in charge of that incessantly hard worker and enthusiastic bee-man, Bro. H. D. Cutting. To him, more than to any other, we believe, does Michigan owe a big debt for the great success of her tasty and splendid apiarian exhibit, a picture of which we present herewith.

The bee and honey industry of Michigan is an important industry—much larger than in many other States. The State World's Fair Commission recognized in it an important factor, but were unable to grant any money to make a creditable display, owing to the demands of the many other important industries, of which Michigan is so justly celebrated. The Legislature granted $100,000 for the entire State display; at the next session an additional $25,000 was granted, and out of this last amount $500 was appropriated for the honey exhibit. This was in June, 1893, and until that time nothing had been done to secure an exhibit, as it was understood that no money would be appropriated for the exhibition of bees and honey.



Michigan Honey Exhibit at World's Fair.

Mr. H. D. Cutting had been appointed to make all necessary arrangements for this display, but coming at such a late date, any one else would have given up in despair—but not he.

Knowing too well the importance of immediate action, and the necessary requirements of a successful exhibit, he went into it with the determination to put up an exhibit worthy of Michigan. So in July, Mr. Cutting gave up a lucrative position, and donated his entire time to making a success of "Michigan's Honey Exhibit;" and he is quite willing to leave it to others to say whether it was a success or not.

There was no money to buy the honey to place on exhibition. Then it was that the honey-producers of the State came to Mr. Cutting's rescue, and loaned the honey that comprised that truly beautiful display.

Mr. Byron Walker, of Evart, sent over 1,200 pounds of beautiful extracted clover honey, and which justly received an award.

Mr. D. G. Edmiston, of Adrian, sent over 300 pounds of extra-heavy body extracted clover honey which also received an award.

Messrs. J. H. & A. L. Boyden, of Saline, sent about 100 pounds of the 1892 crop, light and dark honey, but as the exhibit was put up in August, this was too late to pass judgment, but it was a great help to beautify an exhibit of comb honey sent by Hon. Geo. E. Hilton.

Mr. Walter Harmer, of Manistee, sent 120 pounds of extracted honey.

Mr. M. H. Hunt, of Bell Branch, sent a beautiful exhibit of beeswax; also samples of comb foundation and extracted honey. This foundation received an award.

Hon. R. L. Taylor, of Lapeer, sent 520 pounds of comb honey, which received an award. This exhibit of comb honey was, we believe, acknowledged by all exhibitors present, as the finest lot on exhibition.

Hon. Geo. E. Hilton, of Fremont, with his usual liberality, sent over 1,000 pounds of comb honey. This honey was in 48, 24, and 12 pound shipping-cases, painted a dark blue, and every section had Mr. Hilton's card attached, adding to its appearance.

Mr. Thos. F. Bingham, of Abronia, sent a fine collection of his bee-smokers and honey-knives, which received an award.

Mr. H. D. Cutting, of Tecumseh, had on

exhibition over 50 samples of honey, native and foreign. This collection Mr. Cutting will put in uniform glass packages, and present to the State Agricultural College, at Lansing.

Mr. Cutting also kept on exhibition all the time a generous sample of honey-candy. He has been experimenting on this kind of candy for several years. It has the appearance of snow-white marble, and is just delicious, retaining its honey flavor. Bro. Cutting says that when he gets it perfect, so that any one can make it, he will give full directions for its manufacture. That's just like him—alway helping in a good way, freely and unselfishly.

The first exhibit shown in the cut is Geo. E. Hilton's pyramid of comb honey, with Messrs. Boyden's extracted honey in Muth honey-jars standing in all the niches and projections. Mr. Cutting's samples are at the base.

Next came a pyramid of extracted honey over 7 feet high (owned by Mr. D. G. Edmiston), with two smaller pyramids. Next is the round pyramid of comb honey belonging to Hon. R. L. Taylor, the splendid superintendent of the Michigan Experiment Apiary.

In the front end of the case proper, is the large pyramid of extracted honey loaned by Mr. Byron Walker. This was over 6x4 feet at the base, and 8 feet high.

In front was a fine display of honey in fancy glass packages, also Mr. M. H. Hunt's wax exhibit.

The Michigan exhibit captured seven awards in all, which is a remarkable record, considering the very small number of exhibitors from that State. But then, Michigan has always been "right in it," when it comes to honey displays at fairs, and she likely always will be. We imagine we can almost hear our patriotic Michigan readers exclaiming, "Hurrah for Michigan!" That's all right, but don't forget to "hurrah" for Bro. Cutting at the same time. He deserves it, and more.

◆

The "Dec93" Label.—All whose address labels on their BEE JOURNAL wrappers read "Dec93," will please remember that their subscriptions expire with the end of this month; and they are all most earnestly invited to renew, which we trust they will do promptly.

It has been the rule of the BEE JOURNAL for years to send it right along until the subscribers order it discontinued, and pay up all that is due, believing that the great majority of readers so prefer it. Now, it is very little trouble to drop us a postal card if you do not want the BEE JOURNAL after your subscription expires, and it is scarcely any more trouble to *renew your subscription*, so why not do the latter? We need your company, and you want—yes, *need*—the BEE JOURNAL, so we earnestly invite you all to remain with us during 1894—yes, and some more after that, we hope.

◆

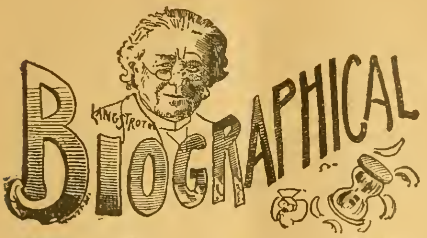
Bro. Leahy, in the December *Progressive Bee-Keeper*, takes Bro. Alley to task, in a very kindly way, for suggesting that the editor of the BEE JOURNAL was doing his own "Random Stingering." Had Bro. Alley read the item on page 551, he wouldn't have made the mistake he did. We there said that "'The Stinger' lives more than 40 miles away from Chicago," and that he is a "single" Stinger. In the list of ladies present at the Chicago convention is Mrs. York's name, so over 200 people that were there know that *we* are not doing the "stinging" in the BEE JOURNAL. Bro. Alley will have to put his "specs" on after this when he reads.

◆

Have You Tried to get a new subscriber for the BEE JOURNAL this fall? We offer to throw in the balance of this year free to new subscribers for 1894, besides their choice of one of the books offered to them on page 767 of this JOURNAL. Then we also give a premium to a present subscriber who will send in new ones. It seems to us that our liberal offers this fall ought induce every one of our readers to aid in doubling the circulation of the BEE JOURNAL within six months. Why not help do this, and then see what a grand journal we can furnish to everybody when once the increased number of readers is secured? If each present reader would send only one new subscriber besides his or her own renewal before Jan. 1st, the thing would be done. Will *you* do it, reader?

◆

"The Honey-Bee: Its Natural History, Anatomy and Physiology," is the title of the book written by Thos. Wm. Cowan, editor of the *British Bee Journal*. It is bound in cloth, beautifully illustrated, and very interesting. Price, $1.00, postpaid; or we club it with the BEE JOURNAL one year for $1.65. We have only four of these books left.



No. 60.—S. I. Freeborn.

There are two kinds of big bee-keepers. One kind weighs anywhere from 200 to 300 pounds each, while each of the other variety counts his colonies by the hundred. Yet the former may be just as great a bee-keeper as the latter. This week, however, we have one of the second class named—Mr. S. I. Freeborn, of Wisconsin. Nearly ten years ago his name was well known to the readers of the Bee Journal, on account of a lawsuit he had with a neighbor sheep-raiser who, we believe, foolishly claimed damages because Mr. Freeborn's bees gathered the nectar from the white clover on the sheepman's land, and thus, as was claimed, causing the sheep to become poor and finally starve!

S. I. FREEBORN.

Mr. Freeborn is one of the large producers of honey in the West, and has been such for a number of years. One who knows him well, kindly furnishes the following sketch:

Among the early pioneers of Wisconsin was Samuel Irwin Freeborn, then only 14 years of age. His father having been dead some four years, he was early thrown on his own resources, and right well did he improve them, for he soon learned to handle a canoe or rifle equal to any Indian with whom he could then test his skill, for Indians were quite common in those days.

Hunting deer and bear was his especial delight, and not until the advance of civilization made game scarce did he give up his annual deer hunt.

Mr. Freeborn is also one of the pioneers in bee-keeping. He kept as high as 230 colonies in box-hives before the advent of frame hives, and he made a success of it, even then having sold $600 worth of honey in one season.

Hearing of the merits of a frame hive, he adopted the Gallup, and increased his bees until he is to-day one of the largest bee-keepers in the State, keeping from 200 to 400 colonies, spring count. While he has a good many Langstroth hives, it is a hard job to convince him that any other hive has as many good points as the Gallup.

Well do I remember the first extractor he had, and what a sensation the first 10,000 pounds of honey made. All his neighbors wanted bees, and many did get them, but now I do not know of but one bee-keeper within four miles of Mr. Freeborn's old place. His largest crop of honey was 45,000 pounds of extracted in one year.

He fully believes in overstocking, and has always run his bees in several different yards, 200 colonies being about the largest number he has found profitable to keep in one yard, and this in the best location, with plenty of basswood, clover, and buckwheat in easy reach.

While Bro. Freeborn is not much of a hand to write for publication, he has always been "there" when it came time to harvest the honey crop.

Winter losses have been the great drawback with him, and many are the experiments he has tried to circumvent this trouble. While the greater number of experiments would be successful for a few years, he has had to fall back on cellaring as the best. But he rather prefers a special arrangement, like a cave dug in a convenient bank.

Once he thought he had a sure thing for wintering, by making small houses over about 20 colonies set close together, and packed in chaff. In mild winters they were all right, but when a real "killer" came along they were absent at spring "roll call."

Besides his bee-business, Mr. Freeborn owns three farms, and is one of the largest fruit growers in the State of Wisconsin, being an extensive grower of apples, grapes and all kinds of small fruit. He is an enthusiast on fruit-growing, and has the largest variety of apples, of named kinds, of any one in the West, to say nothing of an endless number of seedlings of his own growing. He was at one time extensively engaged in the nursery business, under the firm name of Freeborn & Hatch, but he is now about out of that line of business.

Having obtained a competency by industry and economy, he has built himself a fine residence in the pleasant young city of Richland Center, where he expects to spend the remaining days allotted to him, in peace and quiet; although not having as yet retired from the active management of his varied business interests.

The subject of this sketch was born in Hartland, Niagara Co., N. Y. about 60 years ago, and has been twice married, his first wife being Miss Elvira Howe, of Stanstead, Canada. Three children were born during her life, two sons and one daughter. His present wife was Miss Hadassah Spyker, of Ithaca, Wis., and two children have been born to them, a son and daughter.

Mr. Freeborn is a member of the Presbyterian church, and is always wide awake to every interest of the neighborhood, whether it be a social gathering or a political meeting. '76.

The Ladies' Home Journal, of Philadelphia, Pa., and the BEE JOURNAL—both together for one year for only $1.65. The first-named journal is the grandest monthly for the home that is published in the world to-day. New or old subscribers to either journal can take advantage of the low rate of $1.65 for the two papers. This offer expires on Feb. 1, 1894. Send all orders to the office of the BEE JOURNAL.

Have You Read page 767 yet?

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Laying Worker or Queen Drone-Layer

About October 1st I found a colony that was hatching all drones. No drone-laying queen was in the hive. Was it a drone-laying queen, or a worker-bee?

Saxton, Pa. D. M.

ANSWER—Of course if there was no drone-laying queen in the hive, then the drone-brood must have been the product of laying workers, unless, indeed, there had previously been a drone-laying queen there, which was no longer present. With no other knowledge than that only drone-brood was present, it would be impossible to say whether laying workers or a faulty queen were at work, but something might be told from appearances. A drone-laying queen lays by preference in worker-cells. The queen lays only one egg in a cell, while laying workers often lay from one to a dozen eggs in a single cell.

Something About Sweet Clover.

I want to know something about sweet clover. Is it a sure honey-yielder in hot, dry weather like we have in Kansas nearly every fall? Will stock graze upon it? If a man should get his place polluted (?) with it, is it any worse than any other weed? Is a man liable to get sick of it after he has once got it? Please tell us all about the plant.

Williamsburg, Kans. P. S.

ANSWER—The testimony as to sweet clover is, as to some points, very conflicting. Nearly all agree that it is a good honey-plant. Perhaps no one has ever disputed its being a good yielder, but it has been asserted by no less authority than C. F. Muth that it yields honey that is of a sooty appearance. Others think that Mr. Muth must certainly be mistaken, and samples that have been shown as sweet clover honey have certainly had nothing sooty in their appearance. The roots run very deep, making it a good plant to stand a drouth, so that it may be depended upon better than most plants in a dry season.

Some say it is a valuable fodder-plant; others say it is worthless. Perhaps it is more generally liked in the South than the North for pasturage. There are places in the South where it is valued for hay.

If a cow or a horse which had never before seen sweet clover, should be turned into a field where it was growing, you would find them touching it very lightly, if at all. Stock must learn to like it. But they may eat the hay in preference to the green plant. Very likely you can only find out by trial whether it will be of value to you for pasturage or hay. But keep in mind that your stock must get acquainted with it.

As a weed, it does not spread rapidly, indeed very slowly. It is a biennial, and if kept cut down for two seasons, below all branches, so as not to go to seed, that will end it, for the second season it dies, root and branch. As a weed along the roadside, it is perhaps hated worse than any other. Some think this arises from the fact that other weeds are impartial, while sweet clover is a benefit to bee-keepers, and the public are envious of anything that may benefit other than themselves. Possibly, however, the ground for the general antipathy lies in the fact that on the roadside, no matter how hard or poor the soil, the sweet clover makes its most vigorous growth, and a mass of it on the roadside is not the most pleasant thing to drive through after it has attained a height of six feet, and the stalks have become coarse and stiff.

Wintering—Best All-Purpose Hive.

1. I have five colonies of bees all in box-hives and would like to get advice as to their winter welfare. They seem to have plenty of honey in store. 2. Which will be the best hive to adopt next year, to produce comb honey? Also the best for extracted honey? L. G.

Walla Walla, Wash.

ANSWERS—1. You do not mention any particular in which you desire advice as to the wintering of your bees, and the probability is that they are all right as you have them. In any case it will be well to inform yourself generally on the wintering problem by reading up in one or more of the text-books on bee-culture. Don't lose sight of the fact that what is best for one place is not best for another. Consider the peculiarities of your own climate and act accordingly. Much may be gained by learning the practice of others situated near you, together with the success attending their practice.

2. Perhaps the most popular hive at present is the dovetail, with eight frames for comb honey and ten for extracted. Any hive, however, with movable frames will be better than a box-hive, providing you intend to handle the frames. Aside from the advantage in handling the frames, a movable-comb hive is no better than a box-hive. There have been cases where bees have been transferred from box to frame hives with no thought of any change in their treatment, but merely with the belief that bees would do better in movable frames. Such expectation is sure to be disappointed. If box-hive treatment is to be practiced, then the box-hive is best.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
Dec. 19, 20.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Dec. 28, 29.—Kansas, at Ottawa, Kans.
J. R. Barnhard, Sec., Ottawa, Kans.

1894.
Jan. 2, 3.—Michigan State, at Flint, Mich.
W. Z. Hutchinson, Sec., Flint, Mich.

Jan. 23, 24.—Nebraska State, at York, Nebr.
L. D. Stilson, Sec., York, Nebr.

Jan. 24, 25.—Vermont, at Burlington, Vt.
H. W. Scott, Sec., Barre, Vt.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

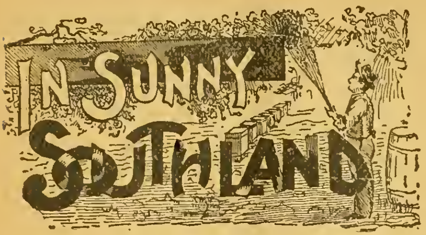
PRES.—Emerson T. Abbott.....St. Joseph, Mo.
VICE-PRES.—O. L. Hershiser....Buffalo, N. Y.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

See Our New Premium List on page 767, and then decide to get some of the premiums offered for securing new subscribers for the BEE JOURNAL. We want every one of our present subscribers to help us increase the number of our regular readers. Will you see what you can do toward it?

Great Premiums on page 767!



CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Remedies for Skunks and Ants.

A little strychnine mixed with a couple of eggs, placed in an egg-shell, and put where skunks meander around, is the neatest, quickest and most effectual way to get rid of these "pets" of the farmer and horticulturist. No expense, and no offensive smells.

Corrosive sublimate in twice its bulk of lard; run a tape or cord through it, and tie around table legs, will keep ants down. This is valuable for housekeepers. No more ants.

This is the experience of—
THE MIGRATORY "BACH" OF FLORIDA.

Dr. Miller's Bee-Sting Remedy.

I like Dr. Miller's bee-sting remedy—"go on and get more stings"—as it seems that it takes poison to kill poison. But, really, I love the effects of a few bee-stings. I know some will laugh at such statements, but they are true, nevertheless. You take a real, old-time bee-keeper, or one that works constantly with bees, and you will find that bee-stings are only a tonic to him. I have often been stung, and took no thought of it until I accidentally found the sting in my flesh. This is another funny saying to some, I know, but I am satisfied Dr. Miller will not laugh at me.

JENNIE ATCHLEY.

Bee-Wagons, Skunks, Mice, Etc.

MRS. ATCHLEY:—Don't tell me that ladies have no inventive talent. I have just finished reading your article on page 589, in regard to moving bees. Now I thought *I* knew a little about moving bees, as I have kept from 50 to 400 colonies a year for the last 25 years, but your "bee-wagon" is a revelation to the writer. I read somewhere of your using such a method, but I supposed the bees would cluster all over the netting.

In regard to your *skunk* trouble, perhaps you could fence them out. If it is the large striped skunk (size of a large domestic cat), a low, tight board-fence will exclude them, or poultry netting; either of these methods protects our poultry here in Iowa, as the "varmints" are poor climbers. The *small* pole-cat, about the size of a mink, will climb anywhere after food.

We rid our buildings and bee-cellars here of rats and mice by setting shallow pans filled with concentrated lye in their runways, with a bait in the center of each pan. The lye burns their feet, they transfer the afflicted member to their mouths, and a bad matter is made worse. Perhaps you could modify this treatment, and make it fit the skunk; it is certain death to small vermin.

Excuse my familiar way of addressing you. I have read your excellent, practical, every-day "talks" until I seem to be well acquainted with you. My health is not of the best, and so I may come to Texas in the near future.

Monroe, Iowa. J. A. NASH.

Friend Nash, please accept my *thanks* for the information you impart regarding how to rid an apiary of skunks.

The method employed in hauling bees, that you refer to, is the wagon we described a few weeks ago in these columns. It is best to puff some smoke in at the entrance before loading the bees, to drive them up among the combs, and then place the hives in the wagon bottom up, and if they seem to want to fly out any, give them a little smoke; as soon as loaded start out, and the bees soon all fill themselves with honey, and quietly stay in their hives all day. We haul one load a week, and we do not close the hives, or put anything over them, and they all come in good condition. But in case some honey should break down in hauling, with the hives standing on their heads, the honey runs down, and the bees go up out of it, and no bees are lost. Have you got the idea? JENNIE ATCHLEY.

"Review's" World's Fair Pictures.

Those photographs in the *Review* don't look like smuggled material. Then Dr. Mason had a hand in smuggling Bro. Hutchinson into the forbidden spot. But when we get such material as Dr. Mason and Bro. Hutchinson in the lead, we may expect things accomplished. To be "shot at," as Dr. Mason has been, and still live, and then a young man walking 15 or 20 miles to see his sweetheart, like Bro. H. did, well—what would we do without such material in our ranks? I, for one, say that we all owe Bro. H. a rising vote of thanks for the fine photographs, and giving us a peep at that big convention, especially those of us that could not be there. Then, just think of lying out all night, and catching those pictures before people were astir! Again I say, good for Bro. Hutchinson. May he live long to teach, interest, and amuse bee-keepers.

JENNIE ATCHLEY.

More About Skunks, Etc.

MRS. ATCHLEY:—I will tell you how I catch skunks in my apiary, as I have had a few to catch almost every year for a long time.

I generally use a box-trap, baiting it with a piece of fresh meat. I carry the trap away and hold it under water until the skunk is dead. Sometimes I save the fur and oil. The skins bring from 25 cents to $1.00, or more each. The oil is worth from 50 cents to $1.00 a quart. Last year I got one skin worth 75 cents, and one quart of oil from one skin. I sold one pint of the oil for 50 cents. It was to use for colds and croupy children. I have sold it for this purpose. Also it is used for asthma, stiff joints, and other uses.

A short time ago I discovered signs of a skunk, and as my trap was burned with the buildings on Aug. 19th, I borrowed four steel traps, and set them close by the hives the skunk had visited (no bait). I found him in one of them in the morning. I dug a small hole with perpendicular sides a little more than two feet deep, to bury him in. Then I held a large board in front of me, and by careful management pulled the stake which held the trap, and attached a long cord to the trap chain. Then I led the skunk out of the apiary to the hole I had dug, and the first thing he knew he was in the bottom of that hole, and with a shovel I soon had him buried, and no scent, and nobody hurt. Later, a neighbor to whom I gave him, dug him up, and saved his jacket.

They cannot scent if you keep them walking after starting them. Last year, one morning, I had two skunks which I led off in the same way. A chicken's head makes good bait, and almost any fresh meat is good. In cold weather, when forage was scarce, and they were hungry, I have caught them with bacon rinds.

I have been troubled many years with a throat and lung trouble, and our severe winters are very trying for me. For three years past I have been away part of the winter. Last winter I spent a month in a sanitarium in Michigan, and then went to southwestern Missouri, where I staid about two weeks the latter part of March. I was much pleased with the climate; and now I intend to spend a good share of the winter in some of the Southern States. If I can stop with bee-keepers, it will be very pleasant. I expect to pay my way, but am no millionaire, and will not expect to stop at high-priced places.

I hardly think I will get so far away as Texas, but if I do, I should like to know of a good locality and good people to stop with. Perhaps you could advise me. If so, I should be very grateful.

I spent a good share of my time in the queen-business, for three years, about 25 years ago, and it would be a real pleasure to me to see your establishment.

I would like to hear of your success in disposing of the skunks, either in the BEE JOURNAL or otherwise.

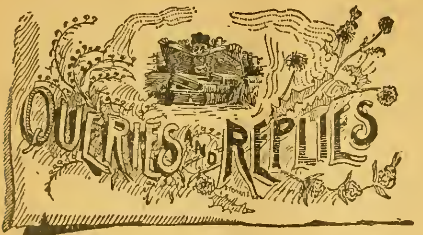
Walpole, N. H. J. L. HUBBARD.

Friend Hubbard, I thank you for your skunk remedy, and as these pests have done great damage to Southern bee-keepers, as well as some in the North, we are very glad to know how to get rid of them. But, here—when I catch skunks after your excellent plan, I want you to come and lead off the first one, that I may better know how; and should you come Texasward, we would be glad to have you stop and see us. You will find a part of us at least about three miles north of Beeville, but, as we are a good, big family, we are usually scattered over considerable territory, establishing out-apiaries, etc. The boys are now somewhere from 20 to 40 miles from here, transferring bees.

I gladly give the remedy for ants, together with the skunk remedy, from our genial brother, "The Migratory Bachelor of Florida." I also thank the many friends for their remedies for skunks, and hope to return the favor sometime.

JENNIE ATCHLEY.

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us.



Arrangement of Brood-Frames for Winter.

Query 901.—Would you separate the central frames in the Simplicity 8-frame hive, to give the bees more room to cluster? or would you let the frames remain in winter as in the summer season?—Utah.

I should not disturb the frames.—R. L. TAYLOR.

I leave mine the same, summer and winter.—C. C. MILLER.

Let the frames remain as in the summer season.—M. MAHIN.

I would let them remain just as they are.—EMERSON T. ABBOTT.

I would leave the combs as the bees have them.—MRS. JENNIE ATCHLEY.

Of late, I leave them in winter the same as in summer.—EUGENE SECOR.

I would let the frames remain the same as in summer.—J. P. H. BROWN.

I would leave them as in summer. It is the natural way, and saves work.—A. J. COOK,

We let the frames remain in winter the same as they were in the summer.——E. FRANCE.

After trying both ways, for years, I see no advantage in spreading frames for winter.—G. M. DOOLITTLE.

Here is an idea I had never thought of—and I believe it to be a good one. I can see no objection.—WILL M. BARNUM.

I have used both methods, and have as good results to leave them in winter the same as in summer.—H. D. CUTTING.

We leave the frames as they are in summer. Our frames are 1½ inches apart, from center to center.—DADANT & SON.

I would let the frames remain just as they are in summer. It is questionable if anything is gained by changing the number of frames in a hive from summer to winter. If more space is allowed between frames in winter, the frames must be returned to their natural position early in spring to prevent loss of brood and brace-combs.—C. H. DIBBERN.

I have tried spreading the frames, but I do not think it necessary, especially in cellar wintering; out-of-doors it might be of some advantage.—S. I. FREEBORN.

I use a 10-frame Langstroth hive. In winter I remove one frame, spacing the nine frames evenly in the hive. This gives ample room for clustering, in my experience.—J. E. POND.

This separating of the brood-frames for winter is another one of the foolish things recommended to the hard-working bee-keeper, to add to his labor without reason or profit.—G. L. TINKER.

If wintered in the cellar, or properly packed in chaff hives, I would not spread the brood-frames; but if wintered on the summer stands, in single-walled hives, I would remove one frame, and spread the other seven equal distances.—MRS. J. N. HEATER.

Let them remain in winter as in summer, but place a "Hill's device" over the top of the frames, for the bees to cluster under, and spread a cloth of Indian-head muslin over the top of the device, and put in a chaff cushion, or box filled with chaff.—MRS. L. HARRISON.

I formerly did, but for several years I have put them away for winter without removing any. In preparing my bees for winter, in September or October, I put a frame of honey to one side of the hive, usually the south, and then the frames of brood, and fill the rest of the hive with frames of honey.—A. B. MASON.

There is some advantage in having the frames separated for winter, but they must be brought back to the usual distance as soon as breeding begins in the spring. As I do not believe in opening hives at that time, I have come to the conclusion that it does not pay me to change the position of combs.—JAS. A. GREEN.

I would leave them just as they are spaced in the summer. I have worked a great number of hives with the frames 1½ inches from center to center of the frames, and while the brood-nests do not present as tidy appearance as when 1⅜ spacing is adopted, I sometimes think that the wide spacing gives the most prosperous colonies. Some hints given by that practical honey-producer and writer—Chas. Dadant—first called my attention to this matter.—G. W. DEMAREE.

Convention
Proceedings

Report of the North American Bee-Keepers' Convention.

Reported for the "American Bee Journal"

BY R. F. HOLTERMANN.

(Continued from page 726.)

The question-box was then taken up, and the following asked first:

PREVENTION OF BEE-STINGS.

Has anything been found to be applied to the face that would be obnoxious to the bees, in so far as to keep them from stinging?

Pres. Miller—Carbolic acid; apifuge.

VALUE OF OLD BROOD-COMB.

Does the age of brood-comb lessen its worth or desirability for breeding purposes?

A sample was shown over twenty years old which had been partly pulled down by the bees and rebuilt.

Mr. Muth—I have combs over 20 years old. The bees get smaller in very old comb.

Another member had a colony over 30 years old, and the bees appeared to be doing well, and were as large as ever.

Dr. Miller thought the bees might have torn down the comb and rebuilt it unawares.

Mr. Holtermann—Keeping old comb in the hive should surely be condemned.

Several mentioned finding combs cut away irregularly in the hive by the bees.

SHORT-LIVED QUEEN-BEES.

What is the cause of the short life of queens as generally reared and sent out by queen-breeders?

Mr. Holterman thought that we often do not know when our queens are superseded. Those we buy we watch more closely, and note a change of queens.

Byron Walker agreed with Mr. Holtermann.

C. P. Dadant—The bees often accept a queen under protest; that is, they tolerate her for a time, and this mode ends in the queen being superseded.

Mr. Green—The long distances queens travel in the mails sometimes injures their vitality.

Mr. Crane—Queens are often older than represented.

MAKING HONEY-VINEGAR.

Did any one ever make first-class vinegar of honey? How is it done?

Several responded yes.

Dr. Miller—You can make excellent vinegar with honey. Directions are to be found in bee-books.

Mr. Muth—You can also make excellent wine from honey. If barley were $1.50 per bushel, honey would be used largely in brewing.

In reply to a question, Mr. Muth said that bakers and tobacconists use large quantities of honey. A few brewers and pork packers also use honey.

ORIGIN OF GOLDEN ITALIAN BEES.

Where did the golden Italian bees originate?

Dr. Miller—In America, probably.

Mr. Dadant said that in Germany you can get Italian bees as bright as they have been bred in America. He thought it was a mistake to breed for color.

Mr. Muth—I got three queens from Dr. Dzierzon, in Germany, and they were not all good. We have much finer bees in America.

Mr. Benton being urged to speak, stated that Mr. Dzierzon exhibited hybrid bees as Italians in 1884, and they received a prize.

DUTY ON HONEY.

Should the duty on honey be removed?

A vote was taken, and with one exception the vote was no.

REARING QUEENS—BLEACHING WAX.

Are we making a success of rearing queens in upper stories with the queen below? Three had succeeded.

What is the best way to bleach wax? Dr. Miller thought this had been explained. Expose it to the light.

USING UNFINISHED SECTIONS.

Should unfinished sections be used next season, or discarded?

The general verdict appeared to be in favor of using them. Mr. Crane used those clean after shaving the comb down to one-half inch in thickness.

J. A. Green would use two or three in each super.

Mr. Stone objected to old comb, as it is tough.

Mr. Theilmann shaved the comb

down. When carefully cared for he thought there was no objection to such sections.

Mr. Aikin, some years ago, used 1,600 old sections. He had 16 in each super, and the balance were new. The flow was free and full, no swarming, and the colonies were strong. In four days every cell in the brood-chamber, and the 16 sections, were full. He thought they had 1,600 pounds more honey. In such a case he would use them. In a light honey-flow, with weak colonies, he would not use them. The comb in old sections is not so good, and the honey is inclined to granulate in them.

DEQUEENING COLONIES.

In reply to a question, Mr. Aikin gave his method of dequeening colonies. His honey-flow began about June 15th, and lasted about 40 to 60 days. He dequeened just before the honey-flow, by removing the queen. The best he uses for nuclei. He permitted them to rear a new queen. There must be not over one queen-cell left. To do this, he looked through the hive carefully, when the queen was removed again, 8, 9, or at the farthest, 10 days after, removing the queen and cutting out cells; or if he wished to introduce choice queen-cells, he cut all out and put in these special cells. Or he left them without any cells for a day or two, and then gave them a young queen. In this latter case it was necessary to make the bees hopelessly queenless, or they might swarm upon receipt of the queen. If left without cells or queens for five or six days, laying workers would begin to develop.

It was then moved by R. L. Taylor, seconded by Mr. Stone, that when the evening meeting adjourned, it should do so to meet in the Fair Ground at the honey exhibit in Agricultural Building, at 12 o'clock the following day. Carried.

Mr. E. J. Baxter presented the following resolution, which was referred to the proper committee:

WHEREAS, We, the bee-keepers of the United States of America are decidedly against the adulteration of foods and drinks of all kinds; therefore be it

Resolved, That the North American Bee-Keepers' Association use every honorable means in its power to secure the passage of the Paddock Pure Food Bill, or some similar measure, to suppress adulteration.

It was moved by Mr. Holtermann, seconded by Mr. Draper, that the Secretary receive a vote of thanks and $25 for his services. Carried.

THIRD DAY—FRIDAY.

The meeting was called to order by Vice-Pres. Crane, and a Secretary was appointed *pro tem.*

The reports of committees being called for, and none having a report, the convention adjourned.

The Treasurer's Report.

The Treasurer's accounts at the close of the convention were condensed as follows:

RECEIPTS.

Cash from former Secretary	$ 69 73
Membership fees, etc., at Chicago convention	167 75
Total	$237 48

DISBURSEMENTS.

Badges for Washington and Chicago conventions	$ 44 20
Amount toward printing proceedings of Washington convention	20 00
Printing notices for Chicago convention, as per bills approved by Secretary	9 75
Postage as per Secretary's account at Chicago convention	11 20
Amount voted for Secretary's services	25 00
Total	$110 15

RECAPITULATION.

Total receipts	$237 48
Total disbursements	110 15
Cash on hand	$127 33

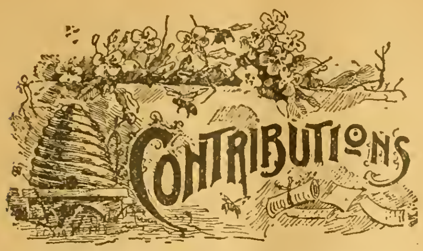
The following name should be added to the list of members found on page 592:—

Claude Smith, Norwich, N. Y.

Mr. H. D. Cutting, we find, is not a life member of the association, though his name is found in the list of life members on page 593.

Your Winter Reading—have you got all the best bee-books on hand, ready for the long winter evenings that are now fast coming on? If not, why not get one or more of the standard apiarian books when renewing your subscription for another year? On page 741, we publish a book clubbing list which will save you money if you take advantage of its liberal offers. Then, on page 767 you will see that by sending us only a few new subscribers for the BEE JOURNAL, you can get some good books as premiums; and, besides, the new subscribers can at the same time have good books free. Just turn to pages 741 and 767, and see what we offer in the line of the choicest bee-literature. This is *your* opportunity.

Have You Read the wonderful book Premium offers on page 767?



Longevity of Honey-Bees—Pulled Queens.

Dear Editor York:—The following letter I received from Mr. Bellamy, and it is of so much interest that I think others should have the benefit of it:

Black Bank, Ont. Nov. 20.

Dear Friend Miller:—I am very glad you had your curiosity aroused in regard to longevity of bees, by my article on page 533 of the Bee Journal; but when you mentioned it on page 629, why did you not say if you had ever noticed hives containing the same amount of brood for a certain time, and a wide difference in the gain of both bees and honey? Such being the case, how could one colony get more bees than another in said time, if it were not all in longevity? Just try to recollect, and inquire of all bee-keepers. This should be sent to a bee-paper as a query.

You appear to doubt if any gains are had from queens four or five years old; then you change the appearance of your statement by adding that it looks a *little* reasonable. Now, you should have said it looks a *big* reasonable. Perhaps you do not understand me rightly, by wanting queens four or five years old. Those queens have always been good, but I could not know that they would hold out until the fourth year, and if doing good service then, and filled up rapidly with bees in the spring, as my choice or select queens do.

There are two ways I judge young queens: First, after a queen begins to lay in a full colony, I allow her to build a piece of comb, and if they build drone, I do not expect much of this queen. This test is to be after swarming. Then about May 1st, I take notice of certain hives which are "going up," as I term it, while others are "going down;" that is, in numbers of bees. W. Z. Hutchinson has noticed this, I think, but could not guess a reason, and I say longevity of the bees is the only cause, if colonies, protection and stores are equal.

This year I kept some colonies building comb all through the harvest; that is, repairing 50 combs which a rat spoiled or damaged by eating large holes through them, which was in a large box last winter. Did you ever notice that some queens with colonies equal, and of the same age, at the same time in a honey-flow, the bees in some would build drone-comb, and others not, but would build worker comb? Perhaps if you always give full sheets of foundation, you could not notice this, because they only had one choice. I feel that you will not understand me rightly yet, as I am a very poor orator or writer; but you may, if you study my theory, and inquire of others, if they had not noticed these things. When W. Z. Hutchinson recommended hiving swarms on starters, and got worker-combs, he had a good strain of bees for longevity, is my opinion. Some larvæ, as soon as hatched, is fed much better than others. Some are fed almost royal jelly; others you cannot see the food in the cells. Just think what effect extra food has upon long life in a queen—living three years; or some larva poorly fed — a worker — three months.

Perhaps more should be said, but time is limited, and I must tell you about "pulled queens." I notice one word in my article was printed wrongly. I have net got the copy here at present, but it reads "there were some O. K.," which should read thus: "Those which would hatch in ten minutes, if let alone, would be O. K." Wait; I think I did read this season that a good many of your pulled queens were failures this year, and the trouble is, I think, by pulling too young. Of course, if ready to come out in five or ten minutes O. K., or queens which have been kept back in the cells by the bees, waiting good weather to swarm, can be pulled O. K., and will be smarter and stronger by being kept in. I have had two such queens hatch out of cells when I held their comb in my hand, and fly away with their swarm which was in the air at the time, and cluster with them. Could your pulled queens do this?

Then, you seem to think I shut young queens in cells for a long time, so they would starve; but not so. I do not put wax on any unless I see them putting their tongues out for food, and keep that place open by dipping the point of the cell in warm wax in a slanting position, with the feeding hole up; and if you do close it much, open it with a pin or fine piece of hay. Then introduce the cell to a queenless colony; in six hours look, and, if hatched, see your good, smart queen. I have accomplished something by grafting the cell so the point will rest on the bottom-bar.

The "pulled" queens don't suit me, because some are dragged out when put into a hive, some stay in three days, and are always teased by about three bees when I see her, and has the hair all gnawed off her, and lays but little, if left to lay.

Now as to that "pulled" chicken: You surely will admit that all animals, or birds, that have a premature birth, are not as vigorous. Still you think that bees are an exception to this law of nature. Now, I would like Prof. A. J. Cook to give his opinion. Ask some woman, that raises large quantities of fowls, how chickens, ducks, or goslings do, or live, which have been helped out of the shell. But then, you say that chickens are not bees. Then you may say that fowls are not animals, etc.

Again, you tell me to try fastening a chicken in the shell after it would come out if let alone. Now, my theory is, that it would improve it for a length of time—about six hours; after this, it would perhaps begin to weaken. Some tell me that a good, healthy chicken is about 18 hours old before it takes any food. Yours truly,

Jas. R. Bellamy.

If Mr. Bellamy is correct in his theory that there is a considerable difference in the longevity of different colonies of bees, it may help to answer the puzzling question that so many have asked with little hope of finding an answer. I mean the question, "Why is it that two colonies side by side, apparently the same in all respects, should produce such different results?"

I confess I have not closely watched the matter so as to observe the difference in colonies of which he speaks. It may exist, for all that, and it would be interesting to know whether others have noticed it. As I understand him, two colonies having the same amount of bees to start with, and the same amount of comb constantly occupied with brood, show a decided difference in population, and he reasons that in no way can that difference of population be explained other than to say that the workers of one colony live longer than the other. If his premises are correct, I see no reason why his conclusion is not correct. If so, it is worth while to work for a strain of bees that will live longer than the average, and if there be only a difference of two or three days, then that difference is worth gaining.

The life of a worker in the busy season is estimated at 42 days. What advantage will there be in having it extended to 45? If a bee commences to store when it is 16 days old, then the bee that lives 42 days days will have 27 storing days. If it has three more storing days, then it will store 11 per cent. more. Quite an item. If its life should be lengthened a week, then it would have a fourth more than the usual number of storing days.

With regard to rearing queens from an old queen four or five years old, Mr. Bellamy does not claim that a queen is better at that advanced age than she is when younger, only he is not sure at a younger age that she possesses the longevity desired. If she has lived to an old age, he expects her posterity, both queen and worker, to be remarkable for longevity.

The matter is one of interest and importance, and possibly the attention of others may be directed to it so as to gain more light.

With regard to the matter of pulled queens, it is not of so great importance, and if Mr. Bellamy and others find no advantage in them, there is no law compelling them to use them. Others, however, find them profitable. Like everything else, there's a right way and a wrong way, and I would not think of using a young queen that had not yet attained maturity. I would not use them younger than they would hatch out of themselves in the hive, if the bees did not hold them in on account of the swarming fever.

Mr. Bellamy asks if my pulled queens, like the two he mentions, would fly at the time of emerging? Certainly. I have had them do that very thing. Why, Mr. Bellamy, if you had let those two queens out five minutes before the time they really emerged, don't you think they would have been strong enough to fly? And in that case what else would they have been than "pulled queens?" And if you had prevented the bees from swarming for 24 hours longer, and then had pulled the two queens, they might have been stronger yet, according to your theory; but I doubt.

Yes, I freely admit that animals of premature birth are not so vigorous, and I do not think that bees are any exception to the general rule, but I would not use a queen until fully mature, and the whole matter of pulled queens rests on the fact that under swarming conditions bees retain queens in their cells after they are fully mature.

Marengo, Ill. C. C. Miller.

Removing Queens from Colonies to Prevent Swarming.

Written for the American Bee Journal

BY ADRIAN GETAZ.

In my article dated July 10, 1893, and published on page 241, I stated that next summer I would experiment on removing queens to prevent swarming, and, as a help, to use an arrangement constructed so as to turn the whole working force without a queen into the supers, cutting them off entirely from the brood-nest for a week, or at least a few days. The theory is, that when bees are hopelessly queenless for a few days, they abandon all ideas of swarming. According to the testimony of men who have removed queens to prevent swarming, this must be not only a theory, but a positive fact.

Since writing the above, I have received several letters inquiring into the details of the arrangement, and this article is intended as an answer to all those who might inquire about it. I do not intend to take out any patent, or make any secret of it, and all those who are willing to experiment in that direction, or suggest any improvement, are welcome to do so.

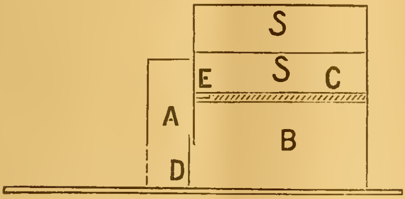


Fig. 1.

In Fig. 1, B represents the brood-nest, S S the supers; A, the box through which the bees pass to the brood-nest when the slide D is open, and directly to the supers when the slide is closed; C, a board intercepting the communication between the supers and the brood-nest. A cut E, in the thickness of the board C, permits the bees to go from the box A into the supers S S.

A bee-escape similar to the one used by Mr. Langdon, must be added to the brood-nest, so as to permit the field-bees to come out, but prevent them from going back. That bee-escape is not shown In Fig. 1. The management should be sometlng like this:

At the beginning of the honey-flow, or shortly before swarming, put on the board C, and close the slide D so as to throw the whole working force into the supers. After they have been there long enough to forget swarming, remove the board C and open the silde D so as to restore the normal order of things. The past experiments have shown conclusively that the young bees left in the brood-nest will give up swarming ensirely, and, also, according to Messrs. Elwood, Hetherington, and Aikin, that the working bees left hopelessly queenless will also give up all the swarming ideas they may have.

The box A ought to be put on early, and left the whole season on the hive, so as to not alter its outward appearance and confuse the bees. In fact, it ought to be, if possible, a part of the hive.

So far, it looked all right, but further reflections revealed at least three difficulties to be overcome. The first is, that there is no certainty that the bees, suddenly deprived of their queen and their brood, will stay at their hive. They may disperse in the neighboring hives. In the ordinary course of events, the queen disappears first, then queen-cells are reared on the unsealed brood, and are destroyed later by the apiarist, or the young queens are lost; then the sealed brood is still there for sometime, so the bees get hopelessly queenless by degrees, so to speak, and stay at their hives. But it is not sure that they would, when both queen and brood would disappear all at once.

Secondly, the escape from the brood-nest would be very difficult to construct satisfactorily. Any one acquainted with bees will see that no sooner will they find themselves minus queen and brood, than they will institute a thorough search for some hole or crack to get in. The escape will not escape their attention, and it will not take them long to find out that their brood and queen are behind that cone; then a cluster of bees will be formed on that cone, with the probable result of smothering the inside bees.

The third objection I can see, is that it may not be always possible to avoid pollen in the sections. Bees carry pollen under either of two conditions—when they need it, and when they gather honey from flowers that dust them over with pollen. In the last case, the pollen gathering is forced, and in the absence of a brood-nest we might expect pollen to be carried into the sections.

As to the first difficulty, the nature of the case almost immediately suggested a possible remedy. Make the box A large enough to hold one or two brood-combs. When closing the brood-nest, take out one comb with unsealed larvæ (perhaps two combs would be better), and put it in the box A. Bees will not desert their brood. Three or four days later, destroy what queen-cells may be found on that comb, and also the unsealed larvæ, but do not remove the comb. The bees will then be hopelessly queenless, and have got to it by a gradual process. Three or four days later the brood-nest can be reopened. The process may be repeated during the summer, in case signs of swarming should appear.

The second difficulty being a purely mechanical one, will be solved sooner or later. The point is to construct the escape so that the outside bees cannot discover that their brood-nest is behind it. Here is the one I want to try first: In Fig. 2, B represents the brood-nest, as seen from above; A, the box conducting the bees from the outside to the supers; D the slide closing the brood-nest, and F the escape in the form of a tube four or five inches long, with a cone (H) and a piece of queen-excluding zinc (G). I will add that the presence of a brood-comb in the box A will greatly diminish the eagerness of the bees in hunting up a hole to get into the brood-nest.

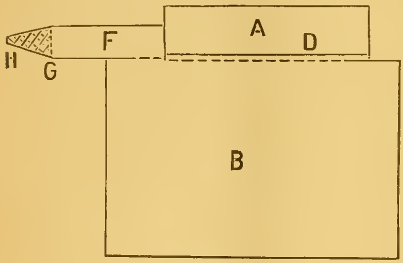


Fig. 2.

As to the third difficulty, it is probable that the most of the pollen brought in would be deposited in the comb placed in the box A. In my locality but little difficulty need be apprehended on that point. At the time of swarming most of our honey is gathered from honey-dew, and queenless bees would not bring any pollen, or very little, under such circumstances.

Knoxville, Tenn., Nov. 27, 1893.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

Managing Bees so as to Make Them Profitable.

Written for the American Bee Journal

BY ALEX. ROSE.

I started last spring with 13 colonies of hybrid bees, one being queenless. I increased them to 18, and got about 500 pounds of comb honey in one-pound sections. I use V-shaped starters 4 inches wide at the top, and 2 inches long. In the center of the sections I fasten them in with a hand-made machine. I made a section-press or machine with which I use a treadle. As soon as a section is doubled it is pressed together. I can fold and press about 15 to the minute. It is on the principle of the old sash saw.

I use section-cases made of ½-inch boards, holding 14 sections to the case, two cases filling one Langstroth hive. I use a wood-slat honey-board with four openings for the bees to pass up through. I scarcely ever have any pollen in the sections. I don't have any "young swarms." I manage to have empty combs to start on in the beginning of the swarming season, and when my first swarm comes off, I put it on empty combs with two or three frames out of the hive whose colony just swarmed. I then put it on the stand of the old hive, with partly-filled sections, and then remove to a new hive. In 15 minutes they are at work nicely, as the bees in the field come in loaded with honey, they are inclined to pass on up to the sections to unload before they do much below, and as I get all the working-force in the new hive, there are bees enough to carry on all the work above and in the brood-chamber. Now if the flow of nectar continues good, in six to ten days the sections are finished, ready to take off, or tier up and have them finished on top of 28 empty sections.

Now for the old colony: If I have any weak colony I set this old hive on it, closing it up so the bees have to pass out through the hive of the weak colony; in a short time another swarm comes off. I still have empty combs, so I go to the hive I have on top of the weak colony, take out about three frames, still partly-filled with brood (seeing they have no queen-cells), put them in with the old combs, and putting on the partly-filled sections the same as on No. 1. When I have no more weak colonies I tier up old brood-chambers after swarming, and when a new swarm comes after this, I smoke down all the young hatched bees in the top hive, remove all queen-cells, and put this on the old stand, as in the beginning.

Now, in a few days the bottom brood-chamber, into which I drove the bees from the top brood-chamber, is ready for sections. I go to one of the strongest colonies, take off one set of partly-filled sections, and put on this doubled up colony, and they will fill it full in a short time, if the flow continues.

I will say that when you put the first old brood-chamber on a weak colony, it is generally best to kill the old queen in the weak one, and rear a new or young queen from a cell in the one put on top, which generally is of the best stock, as the best build up earliest and swarm first, and are the best to gather honey.

Now for the result of this system of management: I have neighbor bee-keepers who go on in the "good old way of our fathers," and I think I can safely say I produced from twice to three times the amount of honey they do, and I sell my honey in my home market for 20 cents per pound, while they sell what little they happen to have at about 10 to 15 cents, and it is dear at that. I generally sell to one or two grocery men furnishing a nice show-case about 3x4 feet, with a glass in front where customers can see it from the outside, but cannot handle and disfigure the honey. I have kept bees for the last 15 years, and I find the longer I keep them the more there is to learn about them.

For practical purposes in producing honey for profit, we want actual experience more than theory. As a rule, bee-keepers want money, and let such men as Prof. Cook, Doolittle, and others, do the scientific work, and give their experience to the world; and then the common men and women who keep bees for profit, can have the benefit of their labor.

Windsor, Ill.

Theories Regarding the Origin of Foul Brood Examined.

Written for the American Bee Journal

BY S. CORNEIL.

Leaving out the narrative portion of Mr. Simmins' article on page 501, the remainder is a medley of theories long ago shown to be erroneous, but as some of these exploded theories keep cropping up on this side of the water, from time to time, and as the editor has thought fit to publish them, it is desirable that they should be examined.

Mr. Simmins says: "As a matter of fact health existed prior to disease, hence the respective microbes are only evidence of any particular disease;" and again: "When I repeat that healthy tissue existed before a diseased condition of the same could occur, then it is self-evident that microbes were not the origin but the *result* of the disease." Here he draws two conclusions, each of which is based on one premise only, instead of two. This is not the kind of logic we are accustomed to find in the writings of prominent English bee-keepers.

Further on I find the following statements: "Seeing that primarily the disease was contracted without any external communication, scientific theorists should not overlook the fact that what has happened once, can, and does happen again"......"We are compelled to admit that the same fungus growth can be again developed without any infection from outside sources, if only the same disordered condition be produced." Let us see how this "practical man's" theories work out in a practical test.

Suppose a young man in vigorous health presents himself before a physician, and requests to be vaccinated. The doctor scrapes away the cuticle from a spot on his arm, and introduces into the young man's healthy tissues the microbes of cowpox. These microbes at once commence to draw nourishment from the surrounding tissues, and to throw off their poisonous waste-products, producing a diseased condition, where before there was nothing but health. I ask, is this a case in which "the disease was contracted without any infection from outside sources?" and are the microbes present "the *result*, and not the *origin* of the disease?"

The specific microbes of infectious diseases find a lodgment, and grow, in healthy tissue, at some point so tender that assistance from the lancet of the surgeon is not required. The germ of diphtheria, which finds a lodgment in the delicate tissues of the throat, is a case in point. The microbe of foul brood, which floats in the air, may fall on the soft tissue of a living bee-larva, and start the disease. If, instead of a living larva, it should happen to fall on a dead one, there would be no resistance to its growth, and experiment shows that in the temperature of the hive the conditions for its multiplication are favorable. A prominent English writer says that "dead brood in the hive is an accessory before the fact."

Trouessart, in his work, "Microbes,

Ferments, and Moulds," says: "Before an infectious disease can be considered due to the presence of a specific microbe, it is indispensable to submit it to the test of four rules which have been clearly established by Koch." The microbe, bacillus alvei, has been submitted most rigidly to those four rules, by Dr. Watson Cheyne and Frank Cheshire, in the biological laboratory, South Kensington, London. A full account of their work on this microbe was placed before the biologists of the world in the columns of the "Journal of the Royal Microscopical Society," August, 1885, proving to the satisfaction of all, that bacillus alvei is the *cause* and not the *result* of foul brood.

In passing, I wish to say that Mr. J. A. Green, of Ottawa, Ills., has repeatedly said, "A little bird whispers that bacteria are not the cause of disease but the result of it." Mr. Green should tell his little feathered friend that it should cease its whisperings, because its statement has been proven to be incorrect.

In the above quotations from Mr. Simmins' article, it will be seen that he says, only in other words, that the microbe of foul brood has been produced spontaneously, and that the same thing may occur again.

"In 1857, Pouchette denied the presence of living germs in the atmosphere, maintaining that micro-organisms are spontaneously generated. He was at once opposed by Louis Pasteur, who denied the possibility of spontaneous generation. He proved that the atmosphere surrounding us contains innumerable microbes, and that a few of these, when introduced into a flask, at once produce putrefaction of its contents. By other remarkable experiments Pasteur ultimately proved that spontaneous generation is a myth, and never takes place under any conditions known to us."—*Nineteenth Century.*

Some years later, in England, Dr. Bastian contended that because living microbes sometimes appeared in his culture fluids, after they had been boiled, therefore life is generated spontaneously. He held that the co-existing bacteria in disease are pathological products, spontaneously generated in the body after it had been rendered diseased by the real contagium.

Professor Tyndall undertook to repeat Dr. Bastian's experiments on which the above conclusions were based, using the same material for culture fluids, and the same microbes; but instead of continuous boiling to kill the germs in the cultures, as practiced by Dr. Bastian, Prof. Tyndall used what he calls discontinuous boiling, that is, he boiled the fluids for a minute or two at intervals of a couple of days, and repeated this several times. He found that he could always kill the germs in this way, while on one occasion he boiled a culture for eight hours continuously without destroying the microbes. He also took better precautions than had been taken by Dr. Bastian, to exclude germs from the culture fluids after they had been boiled. The results were that no life afterwards appeared in Prof. Tyndall's culture tubes, and Dr. Bastian's theories were completely demolished.

One cannot help wondering where Mr. Simmins must have been keeping himself, while the results of these experiments were being made known to the world, and how it is that Mr. Simmins does not seem to know that those who are most competent to judge now agree that there is no life without antecedent life.

Another exploded theory believed in by Mr. Simmins is, that "all animal life contains infinitesimal and obscure seeds of disease and death which develop into microbes." Healthy blood and tissue have been submitted to every known test, by the most learned and skillful experimenters in the world, in order to find, if possible, evidence of the presence of these microbes, or the seeds from which they develop. The results prove that no such micro-organisms exist.

Any one who will take the trouble to look through "DeBary on Bacteria," or other recent works on the subject, will readily see that, to use a common phrase, Mr. Simmins has not "kept up with the procession." A "grind" on the matter in hand will not be out of place before he again undertakes to "go for" the "scientific theorists."

Lindsay, Ont.

"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the BEE JOURNAL for one year, for $1.60.

Letter Box
Reports, Prospects, &c.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bee-Paralysis or Nameless Disease.

As I have learned a great many useful things from the AMERICAN BEE JOURNAL, from time to time, and from every direction, I think it every one's duty to answer any question or questions that may be asked by the "novice" or the editor; so I will try to tell Mr. Novice (page 630), how he can cure his bees of paralysis, or the nameless bee-disease.

Usually the bees pull through without any fussing, but sometimes we have a colony that wastes very fast, and in order to save them, something must be done, and that quickly. My bees have been troubled every summer with this disease. It seems to affect the old bees first, so far as can be seen; but if you lift out a comb of hatching brood, and notice closely, you will observe the same shivering motion with the young bees.

I had a colony the past summer that was reduced to merely nothing before I noticed it, so I thought I would experiment with them. I killed the queen, and gave them a comb of hatching brood, also a young queen, and that was the last of the disease. If Mr. Novice will re-queen the colony that first is affected with it, he may never be troubled again. The disease has never spread with me. Try this simple remedy and see. ORVILLE JONES.

Stockbridge, Mich.

Another Honey-Seller Like Melbee.

I suppose that the editor was greatly moved toward feeling good these hard times, when he published, on page 617, Mr. Melbee's method of selling honey. You see now, Mr. York, there are some bee-keepers who will not be discouraged, like I am, on account of the poor season in Mr. Melbee's locality.

Mr. Melbee is a live man, like the man with whom I have been acquainted for about ten years. He goes around from house to house with a tin pail in his hand, containing a sample of the honey he offers to sell to his customers. I know him well in this town. He sells honey in tin pails holding five pounds each, and gets a big price. He comes regularly every three or four weeks, and stays here several days at a time, and attends to his business on the run. The children and mothers, when they see him, call him "The honey-man."

The amount of honey he sells annually he does not produce himself in his apiary—he purchases it from some other bee-keepers who have more honey than they are able to find a market for at home, giving them a good price, I suppose, for good honey, and when he sells it again, he manages to make about as much as if he did produce the honey himself. F. BLECKA.

Elgin, Ills.

Foley County, Tex., and Dr. Miller.

If Mr. C. Klock, of Frio county, Tex., who has a letter on page 665 of the BEE JOURNAL, will examine a good map of Texas of recent date, he will find Foley county, Tex., located on the Rio Grande river, and a short distance southeast of Pecos county. I presume Foley county was once a part of Presidio county. Horse Head Hills, a range of mountains, are located in Foley county.

The latest population given for Foley county, that I have seen, is only 16, which would indicate to me that the neighbors would not annoy each other very much by being in too close proximity. What a grand chance this would be for friend C. C. Miller to plant an apiary where he could have an unlimited range for his bees, and all to himself! M. M. BALDRIDGE.

St. Charles, Ill.

Best Season (1893) in 5 Years, Etc.

The past season has been the best for honey that we have had for the past five years. White clover is our main dependence in this locality, and it bloomed profusely, and the weather was favorable during its bloom. We had, spring count, 45 colonies—lost 5 during the winter, and 3 were so reduced that they just pulled through, but have not produced any surplus. We took from them 1,500 pounds of comb and 500 pounds of extracted honey by July 10th, since which time they have only just about made their living. We now (Oct. 24th) have 60 colonies, all told.

We winter the bees on the summer stands, using the Langstroth 10-frame hive with loose bottoms. For most of our hives we use are an outside case, and pack between with dry leaves, but somehow we are losing faith somewhat in these outside cases for this locality (southern New York), for the reason that for a few years past we have left a number of our hives unpacked, with single walls, and the percentage of loss was not as great with these hives as with the double-cased. We frequently place two hives, one on top of the other, with four or five frames in each (honey mostly in the top hive), and then put in a division-board on the sides of the frame, and fill in between this and the sides of the hive with leaves. Colonies in hives thus packed generally succeed well.

As for non-swarmers, we do not care for

them. Our bee-yard is partly shaded with apple-trees well trimmed out and up, so that most of our hives have partial shade. We appreciate this when working among them in a hot day, and see no difference with them as to those fully shaded and some mostly in the sun; out of the 42 in good condition, only 7 cast a swarm, and a part of these were among the most shaded portion; therefore, we concluded that shade or shine made but little difference with the swarming fever.

We spread the brood (not too early) in the spring, and keep on spreading until the 10 frames are in. We also give sections just before the clover begins to bloom. We want all the bees we can get in the hive at all times, then keep them busy during the harvest time, with room to spare at all times, below as well as above.

We have tried the Doolittle top-hive queen-rearing plan, but no more of that for me. Nary a queen did I get fertilized. We have for years taken the first colonies that swarmed, and divided them up into nuclei, about four days after the old swarm left; then built these up, or "jumped" them later on with a strong colony. In this way we have no fuss of introducing queens, and are all the time using the best working blood for future posterity.

I want bees for business, not for beauty, so please exuse me for not wanting any of your all-yellow, five-banded, lazy, no-sting kind. We have tried them to our satisfaction, and loss of time and cash.

CHESTER BELDING.

Middletown, N. Y.

A Bee-Keeper for 65 Years.

FRIEND YORK:—I have had 65 years, experience in the bee-business. Perhaps you will say, as others have said to me, "How old are you?" my answer is this: I was born on July 20, 1814. If I reckon rightly, I will be 80 years old my next birthday. I have kept bees since I was 14 years old, and have been through all of the changes in the business. I have kept bees in six different States, namely: New York, Vermont, Massachusetts, Pennsylvania, Virginia and Wisconsin. So you can see that I have had some experience in the business.

I have 186 colonies in good condition now. They are out to-day (Nov. 8th) having a nice flight. I keep one-half in chaff-packed hives, and the balance in single-walled hives. I have a good cellar for the colonies in single-walled hives. My average surplus honey crop this year was 210 pounds, spring count, with 4 more increase than the spring count. All have plenty of honey for winter.

I had one colony that I kept a record of. I extracted from it 300 pounds, got 50 pounds of nice comb honey in sections, and by dividing I made 6 new colonies from it, that are in fine condition for winter. I sold the extracted honey for 9 cents a pound, the comb honey for 15 cents, and the 6 new colonies at $3.00 apiece. The sum total is $52.50. Who has done better than that? The above are actual figures.

I have taken the BEE JOURNAL nearly all of the time since it was first published in Washington, D. C., in 1861. I read all the bee-literature that I can find, so you can see that I am not a greenhorn at the business. I claim that I can manage and handle bees as well as any one. I can furnish proof of my statements made here. I handle as many bees as any one in this State, or any other State, as I have made a specialty of it for 40 years. I do nothing but handle bees during the season.

I could write a large volume on bee-culture, from my own experience, that would be of great value to beginners in the business; but I do not want to undertake it, as I am nearly through here, as three score years and 10 is alloted unto man, but by reason of strength he may reach four score; and as I have but a few days left until that time, it is too late in life to commence to do it.

S. T. CRANDALL.

Hartford City, Wis.

Curing Bee-Paralysis by Feeding.

In regard to the disease of Mr. Novice's bees, as described by him on page 630, I desire to say that it is what I call "bee-paralysis." His description of the disease in its many phases corresponds exactly with my experience. By reference to page 16, of the BEE JOURNAL for July 6, 1893, it will be seen that I gave it, as my opinion, that the trouble is a contagious disease, and gave my experience in proof of my opinion. The spread of the disease in Mr. N.'s apiary, as described by him, is confirmatory of that opinion as there given.

As a remedy, or the most successful one that I have found, is to keep the queen of the diseased colony actively at work. I do this by feeding regularly in stimulating quantities, if honey is not coming in, until the disease disappears, which is usually in a week or ten days, though I have known it to hold on several months. I, like Mr. N., tried the salt remedy to no effect, but I believe that stimulative feeding will save nine-tenths of the diseased colonies. In my experience with the disease, I have not lost a single colony that was treated in the stimulating way.

It is well enough to say here, that in the nature of things (or the Providence, if you like), but few bees, comparatively speaking, are required to go through the winter, and preserve the species, and if we find large numbers dying from strong colonies in the late fall, we should not always be alarmed, or think our bees diseased. In this, Nature may only be doing her usual work.

Sneedville, Tenn. H. F. COLEMAN.

Difficulties in Marketing Honey.

There are some things in the item on page 617, in regard to marketing the honey crop, that I can't understand. How can one man get the price given for his crop, with perhaps 50 others with equally good crops that will not do the canvassing required, but will find what honey is worth in the general market, and offer to neighbors and others honey in every quantity at from 6 to 8 cents per pound, and the price is handed from one to another until it is generally understood in the market? Now he must not have competion. There are in this State farmers that have from 50 to 500 pounds of honey to dispose of not always in good shape—comb honey put into an old shoe-box, and extracted in a molasses keg or barrel. They have not the time or disposition to look for a good market, but will take it to town, and accept the first offer, and thus cut the price below living prices to most honey-producing specialists. What is needed is a better understanding of the value of honey as food and medicine, and more harmony among the producers. The letters of late in our able friend, the BEE JOURNAL, in regard to marketing the honey crop, are just what we want.

Hub City, Wis. DANIEL SPRAGUE.

[We told on page 617 just how Mr. Melbee sells his honey for such a good price. He sells among a fairly well-to-do class of people, and he knows how to get a good price for his honey.—ED.]

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, in Washington, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

* * *

CHICAGO, ILL., Dec. 4, 1893.—There were but few shipments of honey to this market last week. The cold weather started business up, and honey moved some better than heretofore. Fancy and No. 1 is getting scarce, and prices are on the upward tendency. Fancy, 16c.; No. 1 white, 15c.; fair, 14c. Extracted is moving slowly with plenty to satisfy demand. Beeswax, 20@22c. J. A .L.

CINCINNATI, O., Dec. 8.—Demand is good for all kinds of honey in the jobbing way, for family use. There is a slow demand from manufacturers. Extracted honey brings 5@8c.; comb honey sells at 12@16c. a lb. in a jobbing way for best white.

Beeswax is in fair demand at 20@23c. for good to choice yellow. C. F. M. & S.

CHICAGO, ILL., Nov. 1.—Fancy white comb honey brings 15c. per lb. Grades not grading first-class are not selling at over 14c., as there has been quite a quantity of California honey received here, and is offered at 14c. The quality is superior to most of that we receive. Dark comb honey sells slowly at 12@13c. Extracted ranges from 5@7c., according to color, quality, flavor and style of package. The trade in honey has been large this season.

Beeswax, 22c. R. A. B. & Co.

ST. PAUL, MINN., Oct. 9.—Our market for comb honey is improving, and receipts since our last report have moved off fairly well, prices unchanged. We quote best white comb honey 14@15c. for California. Extracted lower under free offerings from the coast; we quote 5½@6c. for white or amber in five-gallon tins. S. & A.

NEW YORK, N. Y., Nov. 1.—Our market on white honey is weak and shows no activity. Supply is plenty, arrivals are large, and the demand is light. Hence prices have a downward tendency and concessions have to be made to effect sales. We quote: Fancy white, 1-lbs., 14c.; 2-lbs.,12c.; fair white, 1-lbs.,12c.; 2-lbs., 11c.; buckwheat is scarce—1-lbs., 11@12c.; 2-lbs., 10c. The market is well stocked with extracted of all kinds. We quote: White clover and basswood, 6@6½c.; California, 5½@6c.; Southern, 55@65c. per gallon.

Beeswax, 24@25c. H. B. & S.

BOSTON, MASS., Oct. 9.—We quote honey as selling fairly well. Best white at 15c. Extracted, 6@7c. Beeswax, 25@28c. B. & R.

CHICAGO, ILL., Nov. 23.—The Chicago market has plenty of honey, and 14c. seems to be the outside price obtainable. Anything that will not grade strictly No. 1 must be sold at 12@13c. Large quantities have been sold, but the supply is at present in excess of the demand. Extracted finds ready sale at 6@6½c. for Northern honey; Southern, in barrels, 5c. Beeswax, 22@24c. S. T. F. & Co.

ALBANY, N. Y., Nov. 23.—Honey market is easier on light and mixed grades, and firm on buckwheat. Small combs sell at 11½@12c. H. R. W.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN, 28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

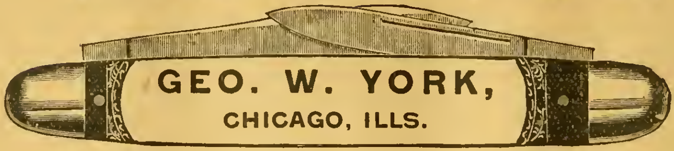
Cincinnati, Ohio.

F. MUTH & SON, cor. Freeman & Central avs

* * *

Read our great offers on page 767.

THE "NOVELTY" POCKET-KNIFE!



Your Name on the Knife.—When ordering, be sure to say just what Name and Address you wish put on the Knife.

The NOVELTY KNIFE is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed an AMERICAN BEE JOURNAL reminder, and on the other side, name and residence of the Subscriber.

The material entering into this celebrated knife is of the very best quality; the blades are handforged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring steel, and the finish of handle as described above. It will last a lifetime, with proper usage.

Why purchase the Novelty Knife? In case a good knife is lost, the chances are, the owner will never recover it; but if the Novelty is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the Novelties, your pocket KNIFE will serve as as an identifier; and in case of death, your relatives will at once be apprised of the accident.

How appropriate this knife is for a Christmas, New Year or birthday present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, a lady to a gentleman, or vice versa, a son to a mother, a husband to a wife, a brother to a sister or a gentleman to a lady—the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid, for $1.25, or give it as a Premium to the one sending us **three new Subscribers** to the BEE JOURNAL (with $3.00), and we will also send to each new name a copy of the Premium Edition of the book "Bees and Honey." We club the Novelty Knife with the BEE JOURNAL for one year, both for $1.90.

Any Name and Address Put on the Knife.

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

ORANGE THE JUDD FARMER

WEEKLY $1.00 A YEAR.

CHEAP READING

. . Beyond all Question the BEST WEEKLY FARM and HOME JOURNAL in America.

Founded by **Orange Judd**, and Edited by his Son, **James Strong Judd**, and many Practical Men and Women.—Fifteen Departments, covering the entire Home and Farm, under the direct supervision of as many Practical SPECIAL EDITORS and EDITRESSES, aided by a large number of Special Writers on all Topics. Better Illustrated than any other Weekly Journal of its kind in the country.

50 CENTS WORTH OF BOOKS FREE

to every Annual Subscriber of the **ORANGE JUDD FARMER**—a choice of **Five Free Books** out of a List of 40—each complete in itself and consisting of 64 Large Octavo Pages, neatly bound. Ten are Reference Works and the other 30 embrace Stories by the greatest Authors. **Valuable and Useful Premiums** to all who obtain New Subscribers for us. Sample Copies giving full particulars mailed free to any address.

ORANGE JUDD FARMER CO., 358 Dearborn St., Chicago, Ill.

Mention the American Bee Journal.

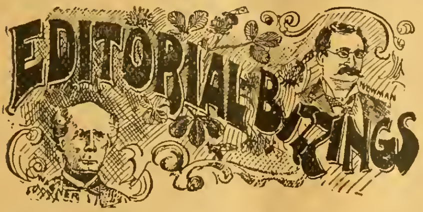
ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK, Editor.
DEVOTED EXCLUSIVELY—TO BEE-CULTURE.
Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., DEC. 21, 1893. NO. 25.



DECEMBER.

Dull skies above, dead leaves below;
And hungry winds that whining go,
Like faithful hounds upon the track
Of one beloved that comes not back.
—*Selected.*

A Merry Christmas to All the readers of the BEE JOURNAL, is our wish at this happiest season of the year. We hope that everybody may have an enjoyable time, and live to see many returns of the blessed Christmas time. Again we wish you—

A MERRY CHRISTMAS.

☞ Every scientific bee-keeper is an enthusiast. The wonderful economy of the bee-hive, from its very nature, presents to the thoughtful student, both admiration and delight at every step.—*Newman.*

Mr. G. B. Lewis, of the well-known bee-supply firm of G. B. Lewis Co., is spending the winter in Florida. How nice it would be if all of us in the cold North could pass the winter in Sunny Southland. We are glad that at least a few can enjoy that luxury, which they doubtless fully appreciate.

Foul Brood in a Bee-Tree.—A bad case of foul brood was discovered in a wild or runaway swarm in a hollow tree in Canada, says the *Michigan Farmer.* The bees were dead, and other bees were robbing the comb, and probably carrying the contagion back to their hives. The discoverer plastered up the entrance to the honey so that no more bees could get in there, and expected to cut up the tree for fuel in the winter when no bees are about. It has generally been supposed that such colonies were not troubled with foul brood, and this may explain how it starts in some apiaries when the bees appear to be doing very well.

☞ So long as the bees are not diseased, and can find no work to do abroad, their winter nap had better be continued.—*Dr. Miller.*

Corncob Syrup—Glucose Honey—At least one fellow has received a portion of his just deserts for selling honey adulterated with glucose, we learn from the Columbus, O., *Dispatch*, a marked copy of which was sent to us recently. Here is the account as published:

Information of the manner in which a Pittsburgh drummer was taken in by one of the Assistant Food and Dairy Commissioners was given out at the department to-day. George Ramsey, salesman for W. A. Cruickshank & Co., sold in a number of Ohio towns honey adulterated with glucose. An affidavit was filed, and a warrant issued for his arrest last August, but he kept out of the way of the authorities until a few days ago he showed up in Youngstown, where he was arrested and plead guilty, being fined $25 and costs.

Commissioner McNeal has a sample of "maple" syrup made out of boiled corncobs and yellow sugar. It was not made for market, but by some one to show what can be done in this direction. It would pass as a pretty fair article of maple, and if sold for the genuine would not be as objectionable as many of the adulterations that have been disposed of in large quantities, not only of maple, but of various other articles of food. If sold as a substitute for the genuine, it would not be in violation of law, but being an imitation it cannot be put on the market as maple.

Corncob syrup! What next? The first thing bee-keepers know, some "smarty" will be boiling old bee-hives (dead bees and all) in water, and call the liquid "pure bee's honey! Why, it would hardly be believed, but here in Chicago many people are afraid to buy maple syrup or extracted honey, fearing that they will only get some villainous mixtures called "syrup" and "honey."

The maple syrup producers can take care of themselves, but we believe that bee-keepers should begin a campaign of education everywhere, and inform the people that pure extracted honey *can* be obtained, and at a reasonable price. The fact is, many people do not know how pure honey tastes; and being disgusted with the vile compounds offered them in many groceries, they give up the idea of buying honey, and cease to call for it when getting table necessaries. Friends, these things ought not so to be. It seems to us there ought to be wisdom and enterprise enough in the bee-keeping fraternity to devise some means by which pure honey shall be found on every table in the land. What an outlet for the honey crop that would make! and what profit there would be where now is unprofitable production!

When this question is satisfactorily solved, we believe there will come to the pursuit of apiculture such a boom as the most enthusiastic has not yet dreamed of. We are willing to try to do our part toward insuring the coming of that boom. Who will help erect a guide-board that shall point toward the right road leading to the desired haven?

☞ Read and study out subjects of interest; and be ready to begin the ensuing season's work promptly, with an adequate comprehension of the extent of the business to be conducted, and a just appreciation of the details therein involved.—*Quinby.*

The Michigan State Convention—We have received the following from Secretary Hutchinson, concerning the coming convention of the Michigan Bee-Keepers' Association:

The Michigan State Bee-Keepers' Association will hold its 28th annual meeting in the Common Council Chambers, at the City Hall, in Flint, on Tuesday and Wednesday, Jan. 2nd and 3rd. The room is nicely carpeted, furnished with chairs, desks and tables, well lighted, and away from the racket of the main street. There is a convenient room adjoining, in which supplies and implements can be exhibited. The headquarters for bee-keepers will be at the Dayton House, a most excellent, clean, and well-furnished, but home-like place, where rates to bee-keepers will be only $1.00 per day. The time for holding the meeting is placed when in all probability there will be holiday rates on all railroads.

The following programme has been arranged:

FIRST DAY—MORNING SESSION.

10:30 a.m.—Experimental Work at Experiment Stations—Hon. R. L. Taylor, of Lapeer.

FIRST DAY—AFTERNOON SESSION.

1:30 p.m.—Advantages of Northern Michigan for Honey Production—Hon. Geo. E. Hilton, of Fremont.

3:00—The Future of the Supply Trade—M. H. Hunt, of Bell Branch.

FIRST DAY—EVENING SESSION.

7:00 p.m.—Advantages that Bee-Keepers May Expect from Bees and Honey Having Been Shown at the World's Fair—H. D. Cutting, of Tecumseh.

SECOND DAY—MORNING SESSION.

9:00 a.m.—Moisture in the Bee-Cellar; What It Can Do and What We Can Do—S. Corneil, of Lindsay, Ont.

10:30 a.m.—The Future of Bee-Keeping—James Heddon, of Dowagiac.

SECOND DAY—AFTERNOON SESSION.

1:30 p.m.—Preparing the Apiary for Winter—R. F. Holtermann, of Brantford, Ont.

3:00 p.m.—Selling Honey Without Employing Commission Men—Byron Walker, of Evart.

It will be noticed that care has been taken not to crowd the programme, as the Secretary believes that a few topics thoroughly discussed are more profitable than a greater number but briefly touched upon. There is also time in which to discuss the little side-issues that are continually springing up.

The association is invited to hold one session (say in the evening of the first day) at the home of the *Review*, corner of Wood and Saginaw streets, where there will be an opportunity to sample some delicious orange blossom honey from California.

W. Z. HUTCHINSON, *Sec.*

The kind invitation from Bro. Hutchinson, to hold one meeting at his home ought to call out a good attendance. But somehow we are inclined to think that dear Baby Fern will be a greater attraction than the "orange blossom honey." However, they may be synonymous in sweetness; and we only wish we could be there to "sample" both.

◆

Big Offer to Renewals.—We would like to call the attention of those whose subscriptions expire with this month, to the following paragraphs, in which we make a grand offer:

Of course we hope to have your renewal. With such offers as we are now making, you certainly cannot refuse. There is no other bee-paper in the United States in which you get so much value for so little cost as in the AMERICAN BEE JOURNAL at $1.00 a year; and we trust, moreover, that our old subscribers will show their appreciation of our effort to give them the best bee-paper at the lowest price, by prompt renewals. Will not you?

ANOTHER MATTER.—With such a journal as we are publishing, and such terms as we are offering, we ought to double the circulation of the BEE JOURNAL before spring. If each of our present subscribers will promptly renew, and at the same time send us one new subscriber, this will be accomplished at once.

Now, to secure *one* new subscriber to a *weekly* paper like the BEE JOURNAL, published at only *only $1.00 a year*, is certainly a very little thing for any one to do. It would seem that any subscriber could afford to do that as an expression of appreciation of the opportunity to get the paper for himself for only $1.00 a year. But we don't ask you to do that.

WE WILL DO BETTER.—If you will, before Jan. 15, 1894, send us your own renewal for one year, and send with it *one new* yearly subscriber, we will consider it a club of two, and give you any premium offered for sending two new subscribers, on page 773.

Now we know you never had an offer from any other bee-paper that would compare with that. Just look at it all through.

1st. We furnish you a *weekly* bee-paper for only $1.00 a year.

2nd. We give a premium for sending a club of only two subscribers.

3rd. We allow you to count your own subscription as one of the club of two.

Surely, we have a right to hope that *every* expiring subscription will at once be renewed, and at least one new subscriber be sent with it.

Why, on such offers as we are making, if you have not time to go out and get the new subscriber, you could afford to send the paper to some person as a Holiday present. It would then only cost for yourself and your friend about as much as your own paper would usually cost, and you would get your club premium besides.

Let us have your renewal, and do all you can to extend the circulation of the old AMERICAN BEE JOURNAL.

◆

The "Dec93" Label.—All whose address labels on their BEE JOURNAL wrappers read "Dec93," will please remember that their subscriptions expire with the end of this month; and they are all most earnestly invited to renew, which we trust they will do promptly.

It has been the rule of the BEE JOURNAL for years to send it right along until the subscribers order it discontinued, and pay up all that is due, believing that the great majority of readers so prefer it. Now, it is very little trouble to drop us a postal card if you do not want the BEE JOURNAL after your subscription expires, and it is scarcely any more trouble to *renew your subscription*, so why not do the latter? We need your company, and you want—yes, *need*—the BEE JOURNAL, so we earnestly invite you all to remain with us during 1894—yes, and some more after that, we hope.

◆

The Long Winter Evenings is just the time to "read up" on bee-keeping. Look over our book list on the 3rd page of this number of the BEE JOURNAL, and then order one or more books when renewing your subscription. Our book clubbing offers are found on page 799 of this issue also. Look it over now, before you forget it. It will pay you.

◆

Honey as Food and Medicine is just the thing to help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies of it, and see what good "salesmen" they are. See the third page of this number of the BEE JOURNAL for description and prices.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Fumigating Foul-Broody Combs.

In answering my question on page 683, you omitted the important part of the question, or perhaps I made the mistake myself. After "combs" please insert "from foul-broody hives," and answer accordingly. I. W. B.

Ft. Lupton, Colo.

ANSWER—Now you are making an entirely different question, reading, "Can combs from foul-broody hives containing pollen but no honey be fumigated so as to be entirely safe?" Some may say that such combs can be so treated as to make it safe to use, but a greater number will tell you that the only proper treatment for such combs is the fire treatment, burning up entirely all the combs and frames. There is certainly no safer plan, even if somewhat expensive, and in the long run it may be the least expensive.

Bees Under the Snow, Etc.

1. Is it a good plan to leave the snow around the hives in the winter, and not open the entrance where the bees go in and out? or should the entrance be opened in a cold winter?

2. What is the best to put in the top of the boxes? M. W.

Sterling, Ills.

ANSWERS — 1. Snow makes a good blanket to keep warm, so long as it is not warm enough for the snow to melt. So it is generally considered a good thing about a hive. But cases of injury from snow have been reportod. If buried under several feet of snow, a hive may be kept so warm as to start breeding in winter, to the great detriment of the colony. But that is not likely to happen with an ordinary snow, unless through big drifts. Sometimes the snow melts at the entrance, then freezes up in such a way that the entrance is closed against the passage of air. Look out for that, and don't let the entrance get clogged.

2. That question is pretty generally answered by deciding what is most convenient. Of course, some things are better than others, but it is not always the case that the best thing is enough better than the most convenient thing to pay for the difference of trouble in getting the best. Your question no doubt refers to the material to put in the hive over the bees for wintering. Among such materials are ground cork, wool, woolen rags or pieces of old carpet; chaff of different kinds, as timothy and oats, etc.

What Killed the Bees?

A neighbor of mine, in preparing his bees for winter a few days ago, found one of his best colonies out of 25, with bees all dead. Everything seemed to be in perfect condition, with plenty of honey, and brood in all stages. The bees were clustered in a cone shape, with the queen. There is no bee-man here that can give any reason for their being dead. Please call attention to this in the BEE JOURNAL—perhaps some of the numerous readers can explain the mystery. L. B.

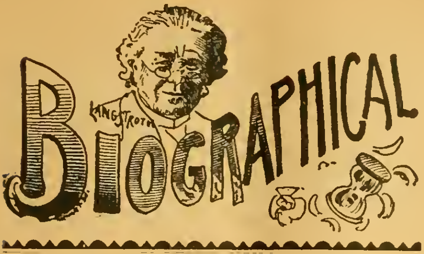
Bridgeport, Conn.

ANSWER—We shall be glad to receive satisfactory explanation from any one. It is not easy in such a case to make a decision without actually seeing the case and knowing all the particulars. Nothing is said about the strength of the colony, nor as to the kind of bees present, whether workers or drones. Some very cold weather occurred before the date of the question (Nov. 28) and it would not be a very strange thing for a weak colony to succumb to the cold. It would have to be very weak, however.

Another possibility is that the queen was a drone-layer, and that a large number of the bees present were drones. These would not resist the cold so well as workers, and as it is understood that they are dependent upon the workers to prepare their food, it may well be that this work of preparing food would put the workers in poor condition to resist the cold.

But some entirely different cause for the calamity may have been present, and a look at the colony itself might readily give a clew to the answer.

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us.



No. 61.—Mrs. J. N. Heater.

Again we are afforded the pleasure of presenting to our readers one of apiculture's successful and prominent lady devotees, in the person of Mrs. J. N. Heater, of Nebraska. For some time she has replied to queries for the Bee Journal, hence the name is well-known to our readers.

MRS. J. N. HEATER.

We had the good fortune to meet her, as well as her husband, at the Chicago convention last October, and we found them to be very kind and genial—just like the rest of the bee-keepers in the State where they reside.

The *Nebraska Bee-Keeper*, some time ago, contained a picture and short biographical sketch of Mrs. Heater, a portion of which we have used in preparing this.

Mrs. Heater was born in Defiance county, Ohio, on March 5, 1855. Her father kept bees in the old way, in box-hives on a long bench, and when still a little child it was a very common occurrence to find her kneeling on the grass at one end of the bench, with her head resting on the same—sound asleep. To watch the bees at their work ever had a fascination for her, and in after years she eagerly sought whatever information she could gain concerning them. In fact, Mr. Heater says that his wife has never yet found anything in print relative to snakes, ants, spiders or bees, but what she has given it a careful reading.

We learn that one of the pleasantest memories she had to take home with her from her seven weeks' sojourn at the World's Fair, was the pleasure of meeting so many genial fellow bee-keepers. Mr. and Mrs. Heater have in view still another treat for this winter—that of visiting the Mid-Winter Fair, in San Francisco, and taking a tour through the States of Washington, Oregon and California.

Mrs. Heater's maiden name was Anna E. Case. She moved with her parents from their Ohio home to Niles, Mich. After several years spent on a farm near the latter place, the family moved to South Bend, Ind. Her life up to this time was passed much as is the life of any farmer's child, until she entered the high school in Mishawaka, Ind., and where she finished her career of instruction three years later.

She then took up the rod and cudgel, and assumed control in the school-room in one of the city schools of Mishawaka. Her health failing, she was obliged to resign and return to her home at South Bend, where, after regaining health, she entered her father's store as book-keeper. Preferring the school-room, however, she soon found herself again engaged in this work, and taught several very successful schools in St. Joseph county, Ind.

In 1876 she joined her parents in St. Edwards, Nebr., where they had previously moved. Here she continued her chosen pursuit of school work for one year, when she was married on Sept. 18, 1877, to Mr. J. N. Heater. This worthy personage was, and still is, a member of "the grip-sack fraternity," managing the business of an eastern manufacturing establishment in the Southwestern States, and his entire time is spent on the road.

To one of so much ambition and former activity, the fact of merely living soon became extremely monotonous to Mrs. Heater, so in 1881 she purchased 7 colonies of bees, and made a practical study of them. The next spring 14 nuclei colonies were added, and success attended the venture from the very first. For the last ten years her "Eureka Apiary" has numbered from 125 to 150 colonies of carefully-bred Italian bees. Several years ago implements and supplies were added to the venture, and now she owns and conducts one of the most complete supply houses to be found in the West, in connection with her splendidly equipped apiary. She personally superintends every branch of the business, issues an annual catalogue and price-list, and ships bees, queens, honey and supplies to all parts of the West.

Mrs. Heater is an active member of the Nebraska Bee-Keepers' Association, and has many times been honored by this society, and is now an officer of the association.

Mr. and Mrs. Heater's home and apiary are located about five blocks from a railroad depot, and her apiary is always open to visitors, and especially to all bee-keepers.

As a writer, Mrs. Heater is well versed, and one article prepared by her once for a convention, was copied by papers in several of the States. But while Mrs. H. is willing and proud to stand in line as one of the prominent bee-keepers of this country, she has no inclination to pose before the public. Nevertheless, we know that this short sketch of her active life will be read with much interest.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.

Dec. 28, 29.—Kansas, at Ottawa, Kans.
J. R. Barnhard, Sec., Ottawa, Kans.

1894.

Jan. 2, 3.—Michigan State, at Flint, Mich.
W. Z. Hutchinson, Sec., Flint, Mich.

Jan. 23, 24.—Nebraska State, at York, Nebr.
L. D. Stilson, Sec., York, Nebr.

Jan. 24, 25.—Vermont, at Burlington, Vt.
H. W. Scott, Sec., Barre, Vt.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

Pres.—Emerson T. Abbott.....St. Joseph, Mo.
Vice-Pres.—O. L. Hershiser....Buffalo, N. Y.
Secretary—Frank Benton, Washington, D. C.
Treasurer—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

President—Hon. R. L. Taylor..Lapeer, Mich.
Gen'l Manager—T. G. Newman, Chicago, Ill.
147 South Western Avenue.

"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the Bee Journal for one year, for $1.60.

"The Honey-Bee: Its Natural History, Anatomy and Physiology," is the title of the book written by Thos. Wm. Cowan, editor of the *British Bee Journal.* It is bound in cloth, beautifully illustrated, and very interesting. Price, $1.00, postpaid; or we club it with the Bee Journal one year for $1.65. We have only four of these books left.

In Sunny Southland

CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

An Experience to be Explained, Etc.

MRS. ATCHLEY:—During the first days of August, 1893, I received an Italian queen which I introduced as follows: I took three combs of hatching brood from as many different hives, and put them into an empty hive. There was not an old or a live bee to be seen on the combs when placed in the hive. I let the queen and her attendants run down on the combs of hatching brood, and closed the hive entrance with a block of wood, so that no bees could pass in or out. I kept the hive in a room thus closed for 48 hours, when I opened to see the result, and lo, and behold! the queen was dead, together with all her attendants except one bee that was yet alive. Also all the hatched bees, 50 or 60, were dead, and lots of larvæ on the bottom of the hive. I tried to follow one of A. I. Root's plans of safe introducing, and the above is the result.

More yet: When I took up the three frames to carry them back to their respective hives from whence they came, I discovered crawling upon the top-bar of one frame a large bee about the size of a middle-sized queen. It seemed to be smeared with mashed brood; I supposed that I had done this in moving the hive a few feet, the swinging frames catching her, thus rubbing or grinding the larvæ to pieces. This large bee did not have queen-bands—it was the color of my bees. When I put the frame it was on into the hive, she crawled down among the bees without molestation.

Now, what killed the queen, the young bees, and pulled out the larvæ?

Another question: My hives are made of ¾-inch lumber, 12¼ wide by 17½ long, and 9½ inches deep, inside measure. We will presume they have sufficient stores, and I have taken off all supers, with just the top on without any aborbents, quilts, etc. The apiary is on the south side of a picket fence. Now need I do anything more for their comfort for a hard Southern winter? If so, please suggest whatever is best for my case, and many thanks will be due you. R. A. WHITFIELD.

Westville, Miss.

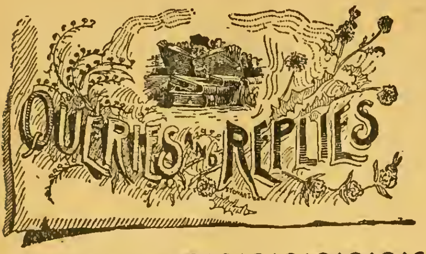
Friend Whitfield, it will be very difficult to tell what killed your queen and bees. You may have smothered them, which is likely, as a closed room in August, and a closed hive in the room, cut off the air in such a manner that the queen and bees might have suffocated, which is more than likely. The large bee was a worker, no doubt, that was filled with honey, as a worker will try, it seems, to eat all the honey she can to keep from drowning, as it were, and her body will be very much distended, and favor a bee but little.

The larvæ had come out of their cells of their own accord, as larva, just before it is old enough to seal up, *must* be fed often, or it gets restless, and as hunger comes on, it will throw itself out of the cell and fall down to the bottom of the hive. So nothing pulled out the larvæ, and your queen, bees, etc., were killed by some unknown cause, so far as I know, as they would not have starved if they had honey, as I suppose they had plenty.

Now my plan is to take two or three frames of *sealed* brood, with as much hatching brood as I can get, and *no* unsealed larvæ, as it will surely die of starvation. Place in an empty hive, close the entrance with wire-cloth, put in a sponge saturated with water, close up the hive, and place in a warm, shady place, free from ants. When sufficient bees have hatched to form a nest and keep house (say in about four or five days), I put the hive out on a stand, give a fresh supply of water, and all is well. I introduced one fine imported queen in this way this year, and all was well—a perfect success. I fear the brood you used was too young.

To your second question I will say that your bees are in just about as good condition for winter as you will ever get them for your latitude. I have no fears but they will come out O. K., if they are strong in bees, and have plenty of stores. But I would investigate their condition occasionally during warm days in winter and spring, that they might be given help should they need it.

JENNIE ATCHLEY.



Packing Hives for Out-Door Wintering of Bees.

Query 902.—What is the most approved method of packing hives for out-of-door wintering, in order to prevent dampness, and secure the best conditions otherwise?—Provo.

I have not had experience.—R. L. Taylor.

The best I know of is Root's chaff-hive.—A. B. Mason.

Having had no experience, I don't know.—Eugene Secor.

I cannot speak from experience, but might try chaff or leaves.—C. C. Miller.

I use chaff-hives with a 4-inch sawdust cushion over the frames.—G. M. Doolittle.

We put straw mats on all our hives, and fill the top with dry leaves.—Dadant & Son.

I have given but little thought on wintering bees, as we have no cold weather here.—Mrs. Jennie Atchley.

Absorbents over and directly around the brood-nest. Outside protection against cold, searching winds.—J. M. Hambaugh.

Keep the entrance wide open always, and fill the surplus chamber with some substance that retains the heat of the hive.—M. Mahin.

A double-walled chaff-hive is now desirable. Such an one as Mr. Manum, or Mr. M. H. Hunt, or Mr. Geo. E. Hilton uses, is surely best.—J. H. Larrabee.

In my latitude, hives need no special packing for out-door wintering. All that is necessary, is to keep the tops of the frames covered with a quilt, with a bee-space under it.—J. P. H. Brown.

We winter all of our bees out-of-doors. We use a quadruple hive, lined inside with half-inch boards, 1½ inch space between the outside of the hive and the inside lining; space filed in with chaff; sealed covers, and 6 inches of straw over the bees.—E. France.

I think a number of dead-air spaces are the best. A good chaff-packed hive is all right. A thin outside packing-case is much better than a thick one, to prevent dampness.—H. D. Cutting.

It would require a long article to give my ideas on this subject. I explained my methods fully in the American Bee Journal of last fall and winter, and I have not changed my belief since then.—James A. Green.

I have had the best results in wintering bees out-of-doors by packing in chaff-packing on all sides, top and bottom, except two or three inches at the bottom of the front, and ventilating only at the bottom.—S. I. Freeborn.

Make a frame of ½-in. stuff, 4 or 5 in. wide, to fit over the lower hive inside the cap; tack a piece of coarse sacking, like coffee-sacking, over the bottom of the frame, thus making a box with straw chaff, or dry leaves.—Mrs. L. Harrison.

Theory, practice, and possibly economy, urge that we approximate four, six or eight hives until all are close together, and then enclose and pack all in one mass. I would use wooden covers, and pack well below and above, as well as on the sides.—A. J. Cook.

I do not know. Packing is generally that much time wasted. You cannot keep bees warm by packing a little straw or chaff around them. Bees do not freeze. They starve because they do not have plenty of food in the right place—*above the cluster*.—Emerson T. Abbott.

Provide an outer box, and pack all around, under the bottom, and over the frames with chaff, dry leaves, or sawdust. Be sure to put on a good roof, to keep out rain and snow. Of course an entrance for the bees should be left, but it need not be very large; also a hole in the outer box for dampness to escape.—C. H. Dibbern.

I am situated too far south to know a great deal by experience about "packing" hives to winter bees. In my locality all "packing" at the sides of the hive is a disadvantage. The warm sun, on clear, sunshiny days, is a greater advantage to my bees than *side* protection is on the cold, cloudy days. No doubt it is different further north.—G. W. Demaree.

Pack in chaff hives on the summer stands with at least two inches of chaff in the sides, ends and bottoms. Spread a new cloth of duck, or something of the kind, over the top of the frames, but first lay three or four corncobs or sticks across the frames to hold the cloth up, and give the bees a passageway over the frames. On top of the cloth put about four inches of dry chaff, and cover tight. Close the entrance to from two to four inches, according to the strength of the colony.—Mrs. J. N. Heater.

Give full width of entrance. Allow one inch space over the top of the frames, Fill above that with 5 or 6 inches of forest leaves, pressed loosely down; the idea being to allow moisture to pass off through the top of the hive imperceptibly, with ventilation through entrance. The so-called "Hill's device" is as good a means as any to give space above the tops of the frames. Its equivalent in any form may be used with equal advantage.—J. E. Pond.

Chaff is probably the most popular packing. I prefer something porous above, over corncobs or a "Hill's device," and then a couple quarter-inch ventilating holes in the cover. The chaff can be used in sacks, or without. Take out useless combs, insert division-boards, and pour in the chaff. Leaves, when dry, are also good. Paper is a good, warm material. Many build an outside case, and fill in all around; this is undoubtedly better still. Have some kind of protection on the windward side.—Will M. Barnum.

My way of packing hives of bees that has been successful for nine years, is as follows: I use a thin outer case (which has a bottom and a cover) for a thin, single-walled, storifying hive that may be used the year around in the case, or taken out at any time and used as a single hive. The case is 3 inches larger all around than the hive, and there is left a space of 6 inches between the brood-frames and the cover. To pack this case I have used dry forest leaves, dry planer shavings, white poplar excelsior; wheat, oat, and clover chaff, and dry sawdust. After all these years I find the first three to be the best in the order named, although either one makes a reliable packing that may be saved each spring and used from year to year. The poorest of all is dry sawdust —it is in fact worse than no packing, as it takes up the dampness and holds it. It should be borne in mind that the thin outer case is a good protection in itself, and, with a warm cushion over the frames, will winter quite well with scarcely any dampness of the inside hive or outer case. But the bees consume far less stores and winter best with good packing.—G. L. Tinker.

CONTRIBUTIONS

How I Became a Bee-Keeper.

Written for the American Bee Journal
BY G. M. DOOLITTLE.

When I was quite a small boy, father took a colony of bees of a neighbor living about a mile distant, to keep on shares, each to have half of the surplus honey and half of the increase. In those days section-boxes were unknown, and the honey was obtained by "brimstoning" the bees. Thus, when fall came, the neighbor and my father would look over the bees and decide how many and which colonies should be killed, after which the honey obtained was divided equally between them. If more was obtained than was needed in the family, it was taken to town and exchanged for groceries, boots, etc., the best and whitest always being taken for this purpose.

I well remember the pails of beautiful, snow-white combs carried to town, which was obtained from second and third swarms, thought to be too light to winter, while all the darker combs and those filled with bee-bread, were left at home for our consumption, to be used in the shape of "strained honey." As perhaps many of the readers of the Bee Journal do not know how honey was strained in olden times, I will tell how mother did it, for this part of the work was always allotted to her:

The combs were chopped up till every cell was broken, and then put into a bag made of thin cotton-cloth. This bag was then hung close to the fire, and allowed to drain all it would into a vessel placed underneath. The quality of honey so gotten out was pretty nearly equal to our extracted honey, if no dark or inferior honey was in the combs. After all had drained out that would do so by hanging by the fire, a large pan was placed in the oven, and several long sticks placed across the top, when the bag was placed on the sticks; the oven was then kept as warm as possible and not melt the wax very much, and in this way quite a quantity of rather inferior honey was obtained, although it was perfectly wholesome, and as clean as any extracted honey.

The idea has been advanced, and gone into print, where a comparison of extracted and strained honey has been made, that the former is the clear nectar of flowers, free from all impurities, etc., while the latter is a mixture of filth and honey, obtained by mashing dead bees, and bee-bread, together with what brood there might happen to be in the combs, till all was fine, and squeezing the whole through a cloth. This has been done to prejudice people in favor of extracted honey; but I do not consider such things honorable, from what I know of straining honey, for from all the knowledge I have, I would as soon risk the cleanliness of strained honey as that of extracted; for at our house, nothing looking like dead bees, brood, or filth, was ever allowed in the sack from which the honey was strained, while I have seen hundreds of disgusting-looking larvæ floating on a vessel of honey where extracting was being done from the brood-chamber of the hive. But enough of this.

After a few years, the bees from the first colony above referred to, had so increased that a division was made, and the neighbor took away what belonged to him. I was now large enough so I could watch the bees, and during the months of June and July, whenever I was not at school, I was stationed near the apiary from ten o'clock till three, to look after swarms. I often became tired of being thus confined, but as father thought that all should bear an equal share of the burden of supporting the family, I was kept at my post, instead of being allowed to roam the streets and fields with other boys.

About this time, father concluded to try to get his surplus honey by placing large boxes, holding 15 to 20 pounds, on the hives. These were placed on top of the hive, or at the side, as he thought best. On one occasion he hived two swarms (which clustered together) in one hive, placing one 20-pound box on top, and two 15-pound boxes one at each side. To place them at the side, the hive was raised on half-inch blocks, and a slot was cut in the bottom of the boxes, ½x8 inches, and these slotted sides placed next to the hive. The result was, that he took four 15-pound boxes at the sides, and one 20-pound box from the top, making 80 pounds in all.

After this he "boxed" the most of the hives at the sides, and I suppose it was from this that I got the idea of side and top boxes combined, by the use of wide frames, as I used them for many years when I first began bee-keeping.

About this time, one morning when father was about leaving home, a small second-swarm came out, and as he was in a hurry he said he would give it to me if I would hive it. Heretofore I had never hived a swarm, and it took some little courage for an eight-year-old boy to climb to the top of a tree to get a swarm of bees for the first time—so I thought, at least.

I hived them, and thought so much of them that scarcely a day passed but what I went to see them work, and when fall arrived with cool nights, I used to tap on the hive for the "Good Morning" answer, which was always sure to come. I went one morning, tapped on the hive as usual, but no response, the reason for which I soon found by seeing the inside of the hive empty upon tipping it up, while the edges were charred, showing how the bees had been killed with fire and smoke. About this time that dreaded disease, foul brood, broke out in the apiary, and in two years no bees were left.

My bee-keeping now came to an end till I was 23 years old, yet during these years I was always thinking more or less about the bees, and trying to persuade father to get more bees.

In the spring of 1869 I bought two colonies, from which sprang my present apiary. At this time I subscribed for the AMERICAN BEE JOURNAL, read Langstroth's and Quinby's books on bees, and contracted such a bee-fever that I never became rid of it even to the present time. While all else has seemed like work to me, yet every moment spent in the bee-yard is always play, and after 24 years of this kind of play, I must say that to me the bee-business is still the most fascinating of anything in life.

Borodino, N. Y.

Correct Space Around Top-Bars to Prevent Brace and Burr Combs.

Written for the American Bee Journal

BY O. G. RISLOW.

In *Gleanings* for Oct. 1st there was an article written by Dr. Miller, which interested me more than any, as it was about what space would be the most correct between the top-bars; and in the Bee Journal also this question was asked recently: "What space between the top-bars gives the best results to avoid brace-combs?" I will try to answer, as far as my experience goes.

My experience agrees with that of Dr. Miller. When I first began keeping bees, I made the hives by hand, and as I had no sample hive, I made them according to the description in the "A B C of Bee-Culture," with only 1 inch wide top-bars, and ⅞ of an inch thick. After using them one year they were full of brace-combs, and I began studying whether the frames could not be made so that the bees would not build any brace-combs between them, and I noticed that if there was just ¼ of an inch space between the top-bars and cover, there were no burr-combs. The idea suggested itself, if there was only ¼ inch space between the top-bars, and they were ⅞ inch thick, would they build brace-combs then?

I made one hive as accurately as I could. I made the top-bars 1⅛ inches wide and ⅞-inch thick, thereby making it only ¼-inch space between the top-bars when when placed 1⅜ inches from center to center, and only ¼ inch space between the frames and cover.

I hived a swarm in this hive, and waited for the results. After the bees had built their combs, I opened the hive and the frames were perfectly clean from burr and brace combs, and they are so to-day, after several years' use.

To test my frames more thoroughly, I took some frames with triangular top-bars, and as these are only 1 inch wide there would be a ⅜-inch space between the frames. I put them in the center of a hive, with the other frames in, and after a week's use they were full of brace-combs, and the others were perfectly free from them.

I have noticed that if the top-bars sag or bend, either from poor or not straight grained wood, they build burr and brace combs on them. But there is a difference in colonies in building brace-combs, just as there is in propolizing.

Since I began making hives by power, I make the top-bars 1⅛ inches wide by ⅞-inch thick. I don't use any comb-guide, but always use either a starter or full sheet of foundation.

In regard to the projections or forks of the Hoffman frame end-bars, they will be very narrow, but by not making the V edge, they are a little stronger. I considered the V edge worse than the square, as far as I can see.

The honey crop in this locality was poor. I got an average of 43 pounds of comb honey per colony, mostly all dark. White clover was a total failure, although there was an abundance of it. Linden yielded well for three days, but stopped suddenly. Bees are in a fine condition for winter.

Lake Mills, Iowa, Nov. 15, 1893.

Theories Regarding the Origin of Foul Brood Examined.

Written for the American Bee Journal

BY S. CORNEIL.

I have been watching with interest for some one to show that, what Mr. McEvoy terms his "Strong chain of evidence which no man on earth can dispute," published in the American Bee Journal for May 11, 1893, does not contain a particle of evidence in support of his theory as to the origin of foul brood. Now that Mr. Simmins has undertaken to confirm some of Mr. McEvoy's erroneous theories, and has added others of his own, I think the matter should no longer remain unnoticed.

It will be recollected that Mr. McEvoy's theory of the origin of foul brood is that cells, in which larvæ have died from some other cause, are not thoroughly cleaned out by the bees. While in this foul state Mr. M. claims that the queen lays eggs in them, and that when the eggs hatch, the young larvæ are obliged to consume the decomposed remains of the former occupants, with the liquid food furnished by the nurses. Mr. McEvoy claims as his discovery, that this rotten matter, when taken by the larvæ with their food, is the "whole, sole, real, true, and only cause of foul brood."

There are several objections to this theory. We know the microbe which produces the brown, ropy matter, found in foul-brood cells, and we know the microbe which causes the putrefaction of brood, dead from other causes; those who have studied the matter most thoroughly, agree in saying that the latter microbe is never transformed into the former. A prominent bacteriologist says: "Only those absolutely ignorant on the question have ever argued that the one organism can be transmuted into the other." This objection is, of itself, insuperable.

Again, if Mr. McEvoy's alleged fact, that cells containing remains of rotten larvæ are used by the queen is true, these remains must be visible to the unaided eye, because Mr. McEvoy does not use the microscope; that in his opinion would be science, and therefore something to be avoided. My own observations, confirmed, I believe, by the observations of thousands of other bee-keepers, show, that so far as can be seen by the naked eye, cells are not used by the queen until they have been thoroughly cleaned and polished by the workers. I don't believe Mr. McEvoy, or any one else, ever saw cells occupied with eggs, while they were still partially filled with decomposed brood.

But in support of this theory, Mr. McEvoy claims to have produced a strong chain of evidence which "any judge on the bench would accept, and charge the jury to believe." This "chain of evidence" consists of seven cases in which dead brood was followed by foul brood. Of these he says the case of Mr. C. J. Robinson, described on page 726 of the AMERICAN BEE JOURNAL for 1890, and in the *Bee-Keepers' Exchange* for August, 1882, "is a real test case." The circumstances, in short, are these:

Three combs, containing unsealed larvæ, were unintentionally exposed in Mr. Robinson's yard, until the brood died. When found they were wrapped in an old blanket, and placed on the south side of a building for warmth, where they remained for two months, the blanket being sprinkled with water from time to time to keep the combs moist. At the end of this time, some matter from the decomposed larvæ in these combs was smeared over unsealed larvæ in a comb just taken from a healthy colony. This comb was then enclosed in a wire-cloth cage, and returned to the hive, the result being that foul brood was developed.

Now it seems to have escaped Mr. McEvoy's notice that when Mr. Robinson found these three combs, he says the decomposition in the larvæ was that of foul brood. When the foul brood matter was placed on living larvæ in the caged comb, the disease was propagated as a matter of course. Lest any one should have doubts as to what Mr. Robinson believed he saw, I give his directions for producing foul brood at will, based on the above experiment, and published in the *Kansas Bee-Keeper* for October, 1882, as follows:

"Remove three frames or cards of brood, in the different stages, from the brood-nest. Let the combs face together, and keep them in a moist, warm atmosphere, such as favors fermentative putrefaction, and in due time the putrid mass will be true foul brood."

Such, then, is the "real test case" for which Mr. McEvoy thanked Mr. Robinson, in writing, for "the best article on foul brood ever written." Instead of supporting his theory, it proves that bacillus alvei may thrive in dead brood outside of the hive, where there are no living grubs to eat the remains of decomposed larvæ. If the accuracy of Mr. Robinson's observations is questioned, there are equally strong grounds for believing that he mistook brood which died of starvation in the caged comb, as evidence of foul brood. No matter which view is adopted, Mr. McEvoy's theory gains no support from Mr. Robinson's case.

It is possible Mr. Robinson may have had true foul brood in those three combs. The dead brood furnished the kind of nutriment required, and the requisite heat and moisture were present. The only other essential factor is the germ. That the germs of foul brood do float in the air, like motes in a sunbeam, has been proven experimentally by Schonfeld. Being exceeding light, they may be carried by winds from one locality to another, many miles distant, just as other seeds are distributed. Although it is said there are places where the air is so free from germs that carcases do not putrefy, it is true, as a general rule, that putrefactive germs are present everywhere. It is just as well for us that the disease-producing germs are not so plentiful. Sometimes they are present, and at other times they are not. Although Mr. Robinson believes he can produce foul brood at will, he might try several times and fail, as did Mr. D. A. Jones, for want of germs.

Keen observers who have had experience, or who have learned from the experience of others, can discriminate between the decomposition produced in a larva by bacillus alvei, and that produced by bacterium termo. Whether Mr. Robinson can do so or not, I have no means of knowing. It is a pity Mr. Robinson did not send some of the matter from those three combs to a bacteriologist to have the microbe identified for the benefit of those engaged in the industry.

The remaining six cases in Mr. McEvoy's "chain," where dead brood in the hive was followed by foul brood, are, every one, reasonably accounted for in the same way as Mr. Robinson's. There were present the moist dead brood, and sufficient heat for the growth of the germs carried into the hive in the air, or perhaps in the water in the cases of drowned brood. On this theory the fact that chilled brood is sometimes followed by foul brood, and at other times not, is readily understood. The foul brood germs may be plentiful in the neighborhood, or there may be few, or none. For this reason, Mrs. Jennie Atchley's hives escaped the disease, although they contained abundance of drowned brood.

In the quotation from Rev. Mr. Gruetzner's letter to Mr. McEvoy, it is said that, "In Germany the opinion is universal that deceased brood is the cause of foul brood." It is probable that by this is meant that dead brood forms a nidus for the growth of the germs entering the hive from without, and in this way it becomes a factor in causing foul brood. If it is intended to convey the idea that in Germany the opinion is universal that the queens lay eggs in cells partly filled with decomposing larvæ, and that the grubs hatched from these eggs eat this rotten matter, which then becomes metamorphosed into bacillus alvei, the statement is a libel on the intelligence of German bee-keepers. There are too many eminent bacteriologists in Germany for such an absurd theory ever to become universal.

Lindsay, Ont.

(Concluded next week.)

Bee-Keeping and Poultry as an Occupation for Women.

Written for the "Woman's Congress of Texas"

BY MRS. S. E. SHERMAN.

In giving a glance backward over the past 20 years of my life, nothing strikes me more forcibly than the wonderful change made in the world's opinion of labor for our sex, and in the opportunities and openings for women who do not wish to be idlers in life, and for those who must be bread-winners.

Twenty years ago women crept tremblingly along in one or two occupations—teaching and sewing. Now she stands out proudly surveying the many fields of different labor lying at her feet, and only seeks to select the one to which her strength, tastes and finances naturally lead. From the higher professions, and those requiring long mental effort and training, many a woman may still be debarred from lack of health and strength to bear the confinement of study, and with only small capital may wish an occupation still intellectual and refined, yet having the rigor of out-door life, and the demand for little capital in its beginning. To such I come with a plea in favor of a pursuit which has brought me health and strength, has given me golden opportunities for study of the beautiful and useful in nature, and has also had a very satisfactory effect upon the size of my purse.

If there is one person in all this broad land of ours who has a right to be an enthusiast on the subject of bee-culture I certainly am pre-eminently that person. A poor dyspeptic, who for years could not eat anything that had a drop of grease in it, or drink even a spoonful of that delicious beverage—coffee—without the most dire results following such imprudence; I can now eat almost anything with impunity, which change has all been brought about by active outdoor exercise, working with the ever busy little bee. Haven't I a cause, then, to be an enthusiast, think you, upon this subject?

One great advantage in this occupation is, it can be carried on right at home, in our very door-yards. Another is, it takes but little capital to begin with—less than, perhaps, almost anything else, in which a woman could embark.

In 1888 my bees gave me a ton of honey gathered from the tiny flowers of the hoar-hound alone, and two tons from other flowers, making in all 6,000 pounds of honey, 100 pounds of beeswax, and 33 per cent. increase, bringing the number of colonies up to 60; since which time I have made no increase, as that is as many as I can well manage with other work. Remember, this was the outcome of one colony of bees in the spring of 1880!

Gathering the honey is gleaning that which is going to waste, and would otherwise be a complete loss. Did you ever think of how many things are going to waste, which a hand careful of minor details could garner in and make profitable?

In the beginning of my work there were plenty of persons, as there always are, ready to discourage me, and I was often told I could not find a market for my honey. This was all a mistake, for I have not been able to supply the demand. The largest order I ever received was for 1,030 pounds, and I am satisfied that is the largest amount that ever has left our county (Bell) in one shipment. I have made this statement before, and will repeat it, that I believe if all the honey that is secreted by the flowers in our "Lone Star" State could be gathered by the bees, there would be honey enough for every person in the State to have all they could eat, three times a day, every day in the year. What a great blessing this would be for many a poor child who never gets a taste of that God-given sweet in a lifetime.

If we cannot scale the mountain tops, we can go into the humble walks of life and be gleaners in the valleys, study the wants and necessities of our bees, and have them in a condition to save that which would otherwise go to waste. With the aid of my bees I have saved many tons of honey that otherwise would have evaporated and been lost.

To the refined woman, whose nature revolts against any occupation which brings with it no outlet for busy thought and keen relish for the beautiful, bee-culture offers a pleasant, elevating opportunity for study as well as pecuniary return. It brings us in close contact with Nature and Nature's God. There are new beauties all the time coming to view. Even the despised weeds take on a new form of beauty, never before dreamed of. Take, for instance, the hoar-hound—one of the bees' great food providers, but which is ordinarily looked upon as a great nuisance. Put this insignificant-looking little flower under a microscope, and look at the wonderful beauty of God's handiwork. You will doubtless feel ashamed that you ever regarded it as a nuisance. When you also know of the innumerable millions of bees it supplies with honey and pollen, upon which the bees feed their young, and that the tons of honey it yields supplies abundance of this delicious sweet for the use of man (woman is included), our contempt for this common weed is changed to admiration. These are the beautiful lessons I learn daily from my little bees.

The study of bee-culture is almost limitless. There is all the time something more to be learned. By the use of an observatory hive everything that is done inside a large hive can be seen, and much learned in this way. I would advise every one who keeps bees either for pleasure or profit, to have an observatory hive. It is like an index to a book, and about as indispensable to a successful apiarist. I keep mine on my gallery, and can tell whether honey is coming in either freely or scantily, without having to open a large hive.

Poultry-keeping combines very nicely with bees, as most of the work comes on at different seasons of the year. After the bees are snugged away nicely for the winter, there is no more work with them until spring, and not much very early in that season, and at this time the chicks should be hatched for the most successful rearing. I began the fine or fancy poultry business at the same time I commenced with my bees, and have kept them right along together, and find little conflict between the occupations. I have raised from 75 to 250 chickens per annum. Of course all are not show-birds. The culls find a ready market upon my own table, for we do like nice fried chicken, and almost always have plenty of it at all seasons of the year. Nice, fresh eggs—we wouldn't know how to get along without them, either.

I have five varieties of chickens—Houdan, White Houdan (which originated in my yard), White Crested Black Polish, Silver Spangled Hamburg, Black Langshan and Houdan. I also have a few crosses between the Langshan and Silver Spangled Hamburg and Langshan. These are very fine, hardy, thrifty birds, and would be a fine cross for those who do not care to keep the pure breeds.

Dampness is the greatest enemy that I have found. This can be prevented by having dry quarters for them, both old and young. Keep their houses cleaned at least twice a week—every day is better. Keep constantly a supply of clean, fresh water for them; give them plenty of wholesome food with an abundance of green stuff; make good nests for them, and they will surely shell out the eggs—pure fresh ones—not such as you usually get from your grocer.

I believe in chickens, and intend to have them as long as I have ten square feet of land upon which to keep them. They pay me well as a financial investment, besides adding luxuries to my own bill of fare.

If in this limited review of these two occupations so well adapted to home-life and the retirement so dear to many women occupations, which have given me so much pleasure as well as good, hard-monied profit, I should happen to assist any dependent woman to helpful thoughts for self-support, I shall feel more than repaid for this little effort in presenting Bees and Poultry as a womanly and profitable home-business.

Bell County, Texas.

[The foregoing interesting essay Mrs. Sherman had with her at the North American convention last October, thinking to read it there if it was desired; but owing to a lack of time it was not reached, but it will appear in the pamphlet Report just the same as if read at the convention.—Ed.]

Presidio and Foley Counties, Texas, Described.

Written for the American Bee Journal

BY C. G. ATEN.

To avoid taking up space with unnecessary explanations, I will begin at once to describe Presidio and Foley counties, Tex., beginning with Presidio; suffice to say that my knowledge of this country was obtained by riding over this rough and barren desert as a member of Company "D," Texas Rangers. I was stationed in this section of country from April 3rd to Sept. 1st, 1890.

Presidio county was organized in 1875. Geographically the county consists of high ridges, for the most part rocky, and gradually rising into mountains. Don't picture in your mind mountains that are covered with green timber, and valleys that are washed with clear, cold streams of water, but, instead, picture the very oposite—mountains that are barren save here and there the soto plant and tufts of the coarse gamma-grass, with great boulders of reddish brown sand-stone projecting from their sides. Picture in your mind a desert, almost, of mountains and hills, for the most part barren, with now and then a level plain, perhaps thousands of acres in extent.

There are very few streams of water in the valleys, more generally dry gravel beds over which water runs after one of those quick cloud-bursts common in that country in June and July. I have heard an old resident of the county say that he had never witnessed a general rain over the county, that is, a rain that extended over all of the county at one time. In the rainy season clouds will form in a few moments, as if by magic, rain a heavy shower, and disappear to form again may be 50 miles away.

The greater part of the county's population is Mexican, and they are Mexicans of the meanest type. Marfa is the county-seat, with about 800 population. The elevation at Marfa is about 4,000 feet above sea-level. The elevation falls from Marfa—(which is in the northern part of the county)—to Presidio, on the Rio Grande, and in the southern part of the county, 1,700 feet, while the distance is about 70 miles. This makes a great difference in the climate. In August and September the sand storms will almost suffocate one at Presidio, while at Marfa the wind approaching near a hurricane without a cloud in sight will chill you to the bone. They have no warm and sultry nights at Marfa.

While the Rio Grande valley has entirely a different climate, the valley winds are hot and dry, as though they came out of an oven, while a few miles up on the mountain sides, or on the plains at Marfa, the wind is cool and bracing.

At the time that I was in the county, there were but eight men living in it on the Rio Grande, and I believe that a white woman was never seen in this section. Four of these men have married Mexican women. If the true history of some of these men that have exiled themselves, and almost turned against their race, were known, I have no doubt but that it would be interesting to some.

Shafter is a silver mining town with about 700 inhabitants, mostly Mexicans, and like the people of Presidio, they live in adobe (sun-dried brick) and grass houses. These adobe houses are often built very substantially, and when plastered inside and out they look very much like a rock-house, and last about as long.

The Presidio Mining Co. have a ten stamp mill at Shafter, and ship about $35,000 worth of bullion a month. The town is in what is known as the Chanetti mountains, 50 miles south of Marfa, and 22 miles north of Presidio. In the Chanetti mountains there is a scattering and stunted growth of live-oak timber.

The valley of the Rio Grande, at Presidio, is about 8 miles wide. The Mexicans along here raise some corn, beans, and melons — enough to keep them alive, that is all. All farming is done by irrigation in this country, and it is often managed in a curious way. I believe that parts of this valley could be made to produce fruit as well as the same valley at El Paso, only about 125 miles up the river, and on which as good fruit is grown as in California.

Now in regard to bees in Presidio county, and I have finished. There is but one part that I would think of trying apiculture, and that is the Rio Grande valley. The winds on the plains are too severe for bees, but, as I have said, the valley of the Rio Grande has an entirely different climate. Near the river there is a dense growth of mesquite, while back from the river, in the foot-hills, there is a dense growth of shrub bushes, such as the juisesh, jhajie, and catclaw; also many other semi-tropical plants and thorn bushes. Don't understand me to say that this valley is eight miles wide all along; on the contrary, the mountains almost crowd the river out of existence in places.

In all my travels over this country I can remember of seeing but one colony of bees, and that was in the custom-house yard at Presidio. The hive was a large dry-goods box with one side knocked out for an entrance, though the bees were partly protected by a piece of of blanket flapping loosely over this side. I often raised this blanket and looked in at the bees, but they never offered to sting.

These bees belonged to an old Mexican, and at the time he robbed them, I was scouting in the Chicos mountians. Some of the boys that remained at the custom-house said that he took a tub-full of honey from them, but I think the boys exaggerated, as "Rangers" often do in matters of little importance. Anyway, a couple of weeks later I cut out about eight pounds of as fine white honey as I ever saw. It was, I think, mostly gathered from mesquite.

Statistics for 1888 and 1889 show that there were in Presidio county 61 colonies of bees; amount of honey gathered, 1,050 pounds; value, $235.

Foley county is very much like Presidio, with the exception that it is an organized county, and attached judicially to Brewster county. It is more mountainous, and more sparsely settled than Presidio.

I haven't written this article to discourage any one, neither have I tried to exaggerate for or against, but as honestly and plainly as it is possible for me to do, I have pictured the county. I wouldn't advise any one to go there, especially to the river section, unless he is a lover of adventure. It would also be a pious idea for you to take your gizzard along with you—one such as "Rambler" of *Gleanings* fame must certainly possess; for you will not only have rattlesnakes, centipedes, tarantulas, vinegarons and "stink-cats," to deal with, but many of the most cowardly, cruel cut-throat Mexican outlaws. It is not necessary for further explanation, you understand what I mean. I have yet to see the man that has been bitten by any one of the three poisonous insects, though the country is swarming with them; but, on the other hand, I can show you many graves, besides the three graves of my comrades (one of which was my captain), whose occupants died by the hand of the cowardly Mexican assassin in that country.

Round Rock, Texas.

Convention Notices.

KANSAS.—The Kansas State Bee-Keepers' Association will meet at Ottawa, Kans., on Dec. 28th and 29th, 1893. Free entertainment to all members in attendance. Come and get acquainted. J. R. BARNHARD, Sec.
Ottawa, Kans.

VERMONT.—The 19th Annual Convention of the Vermont Bee-Keepers' Association will be held in Burlington, Vt., on Jan 24 and 25, 1894. Programmes later. All interested in apiculture are invited to be present. Whether you live in Vermont or outside, come to the Burlington meeting. H. W. SCOTT, Sec.
Barre, Vt.

NEBRASKA.—The winter meeting of the Nebraska State Bee-Keepers' Association will be held at York, Nebr., on Tuesday and Wednesday, Jan. 23 and 24, 1894. Interesting essays will be prepared by those competent to interest. For particuiars, address the Secretary. L. D. STILSON, Sec.
York, Nebr.

MICHIGAN.—The Michigan State Bee-Keepers' Association will hold its annual convention, in the Common Council Chamber, in the City Hall Building, in Flint, ou Jan. 2 and 3, 1894. This will be at a time when reduced rates may be secured. Head-quarters for the bee-keepers will be at the Dayton Hotel, where rates are reduced from $1.50 to $1.00 per day. It is a most desirable place to stop—neat, clean, good table and good beds, and a temperance house.
Flint, Mich. W. Z. HUTCHINSON, Sec.

Have You Tried to get a new subscriber for the BEE JOURNAL this fall? We offer to throw in the balance of this year free to new subscribers for 1894, besides their choice of one of the books offered to them on page 773 of this JOURNAL. Then we also give a premium to a present subscriber who will send in new ones. It seems to us that our liberal offers this fall ought induce every one of our readers to aid in doubling the circulation of the BEE JOURNAL within six months. Why not help do this, and then see what a grand journal we can furnish to everybody when once the increased number of readers is secured? If each present reader would send only one new subscriber besides his or her own renewal before Jan. 1st, the thing would be done. Will *you* do it, reader?

See Our New Premium List on page 773, and then decide to get some of the premiums offered for securing new subscribers for the BEE JOURNAL. We want every one of our present subscribers to help us increase the number of our regular readers. Will you see what you can do toward it?

RANDOM STINGS

FROM THE STINGER.

The paragrapher of the *Progressive Bee-Keeper* has asked why we did not use "Stray Strings" instead of "Stray Stings," as I might then use them to bind the "Straws" with. One reason why I did not use "strings" is because neither the AMERICAN BEE JOURNAL nor myself are in the *supply* business.

What sort of an ear must S. E. Miller, of the *Progressive* have when he seems to think that "Stray Stings" sounds a little like "Stray Straws?" I never heard a donkey try to sound the two headings mentioned, but I should judge that if that much-abused beast were to make the effort, he would not succeed in finding much difference between the two.

But ye *Progressive* paragrapher, we found another reason for not using anything that had "stray" about it—we might be thought to be like that (a)stray donkey that is trying to do the funny act for one of the bee-papers.

This seems rough on the Missouri bee-keepers! The paragrapher of the *Progressive Bee-Keeper* asks, "Has not Missouri enough of bee-keepers with cheek enough to assert their rights?" I never thought that a bee-keeper had to push his way to secure what he really wanted by having to have "cheek." The bee-keepers I have had to do with were all nice people—modest to a fault, but, nevertheless, they managed to "get there" every time, while some pompous individuals who had a profundity of gall and cheek, went to the wall.

As it seems that some of the Missouri bee-keepers are a little deficient in that requisite mentioned by friend Miller, I would suggest that he start a School of Monumental Cheek, and offer inducements to the Missouri bee-keepers to come and take lessons from him, that they might make that State the Mecca of apiarists who wish to become *cheeky*.

Somnambulist asks, in the November issue of the *Progressive Bee-Keeper*, "Is it any wonder I feel too full for utterance?" I really do not know, my friend; it might altogether depend upon how greatly infatuated you were with those blonde damsels I saw dispensing beer and that sort of stuff in Old Vienna and the German gardens. I do not know your capacity for the malt liquid; you see. Oh, by the way, did you try the pretzels in one of those gardens or corners, Somnambulist? Bro. Root says pretzels are fine.

Truly, you were an object of pity Somnambulist, and I wonder that you are still at large.

I did not see any of "the pretty little guides in their imitation West Point uniform." I saw the real guides of the Fair, but they did not look anything like the West Pointers. I have seen the latter on their "native heath," and there is a deal of difference between the uniform of a Columbian guide and that of the boys who are serving a term on Uncle Sam's farm on the Hudson.

Now, I guess, that while the Somnambulist was half awake and half asleep on the Fair Grounds, he mistook one of the aforesaid cadets (who, with his comrades, was spending his vacation on the Fair premises) for one of the guides. Strange things are sometimes conjured up in the minds of a *dreamer*.

I notice that one of our queen-breeders has been sending some of his Italian queens over to Ireland. I was of the opinion that the Irish people did not want any more queens or other royal personages fooling around their Green Isle of the Sea. Nothing gives an Irishman greater pleasure than to go before one of our American courts, and become a citizen of this great country, as it gives him an opportunity to swear off allegiance to the Queen of Great Britain and Ireland, and Empress of India.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

Previously Reported................	$75 70
Chas. F. Jaessing, Maumee, O........	1 00
W. R. Mundhenke, Wheeling, Ill.....	1 00
Total...........................	$77 70

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

LETTER BOX
REPORTS PROSPECTS &c.

☞ **Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.**

Nice Winter So Far.

We have a very nice winter so far—plenty of snow for sleigh-riding, and no drifting—something rare here.

I have 14 good, strong colonies of bees in the cellar, and 10 out-doors packed in chaff. I appreciate the BEE JOURNAL, and wish it more than success.

ELMER BRIDENSTINE.

North Liberty, Iowa, Dec. 9, 1893.

◆

A "Record Breaker" Next Year.

We have had two very poor seasons here for honey (this and the previous), but hope for a record breaker next year. I have kept bees for 15 years in Langstroth hives, and see no reason to change. I have 30 colonies to go into winter quarters with.

I met with a painful accident in getting my left leg broken on Oct. 14th, while driving a young horse, consequently I will be confined to the house almost all winter.

GEO. W. MORRIS.

Cornishville, Ky., Dec. 8, 1893.

◆

Bee-Keeping in the Cherokee Strip.

I want to know whether or not bees will do well in the Cherokee, Oklahoma country. Can any of the readers of the BEE JOURNAL answer? I am going there in February or March by rail. I was there in the race, and got a quarter section of land. Can I ship my bees to advantage by rail? If so, how shall I prepare them for shipping? I expect to take one or two cars of freight. My location is south of Hunnewell, Kans., about 20 miles.

Farmersville, Mo. C. A. SPENCER.

[Will some one who knows, kindly answer the question as to bee-keeping in the Cherokee country?

Directions for shipping bees by rail may be found in any of the standard text-books, one or more of which should be in every bee-keeper's library. Bee-papers cannot publish over and over information that may be learned in almost any of the bee-books.—ED.]

Pleasant Weather in Southern Calif.

The weather in the southern part of this State continues to be pleasant. We have had a few light showers of rain, but not enough to be of much account, and as the season has not advanced into that period necessary to bombard the clouds for rain, we have concluded to wait until the illuminating smiles of the bee-keepers advance into that state of brightness, which always means "Get there, Eli."

I was pleased to read the information on the matrimonial question which appeared in a very late number of the BEE JOURNAL. I can now imagine seeing its grinding effects upon the Rambler, and how the ruling qualities are taking effect. Let him take unto himself a wife, and ramble no more.

A. F. UNTERKIRCHER.

E. Riverside, Calif., Dec. 2, 1893.

◆

Bees for Pleasure and Profit.

I became much interested last season in my bees, and had tolerably fair success with them for a poor season. I introduced seven golden Italian queens that I got from Texas, and lost two of them. They are beauties. I want to keep bees for both pleasure and profit, and I know I have much to learn. I think the BEE JOURNAL will be a great help to me.

NOAH MILLER.

North English, Iowa, Dec. 9, 1893.

◆

Results of the Past Season.

I commenced the spring of 1893 with 15 colonies of Italian bees, which I wintered in a bee-house made above the ground. I did not lose a colony nor a queen. I took off 700 pounds of surplus comb honey, and increased to 32 colonies. On Nov. 17th I put them into winter quarters, with plenty of honey to keep them through the winter. The AMERICAN BEE JOURNAL is a welcome visitor ever week in the year. I am very much interested in Mrs. Atchley's department.

JESSE B. LEWIS.

Weston's Mills, N. Y., Dec. 6, 1893.

◆

How to Fumigate Brood-Combs.

This fall I had a reserve force of 50 fine frames of brood-combs full of honey. Early in October I found the tracks of moths in them. After trying in vain to keep a sulphur smoke going in an air-tight box, I hit upon an excellent way to fumigate them. Let the fire go out in the cook-stove. Then remove the front and back covers, on one side of the stove. On or over these place a hive-body full of the frames; then another, and so on clear to the ceiling, and put a cover on the top of all.

I make a lot of sulphur cartridges by spreading a piece of newspaper out smooth on the table, and over this a piece of cotton-cloth. Then sprinkle this cloth very yellow with the flour of sulphur; roll it up into a snug roll about an inch thick, tying it in several places with separate strings or wire thread. This is so the roll will not all come apart when the first string burns. I then cut the long roll into cartridges, about 4 or 6 inches long.

Place a handful of dull coals and ashes in the end of the stove under the frames, and place upon them two or three of the cartridges. Have ready some damp cotton cloths to smother down any blaze. Of course, through the front doors of the stove you can regulate the smoke perfectly, keeping all dampers shut tight so there shall be no draft. I trust now that no one will carelessly set their combs on fire and lay it to me.

My other half laughed at me for saying on page 698, that I raised the hive off the bottom-board the "width of a lath." He says it's the *thickness* of the lath. I guess he is right, and I am indebted to the BEE JOURNAL for the idea.

MRS. B. J. LIVINGSTON.

Centre Chain, Minn.

Got but Little Honey.

I got but little honey this year—not more than 100 pounds, all told, from 16 colonies, spring count. I have put into winter quarters 25 colonies, 18 of which I think are in good condition; the rest I will have to feed in the spring.

JOSEPH DUNBARR.

Scott's Mills, Ills., Dec. 2, 1893.

Mailed Queens—Very Yellow Bees.

On page 697, Rev. W. P. Faylor says, "Who ever saw a good laying queen after she had gone through the mails?" I think I have. I have an imported queen that came from Bologna, Italy, that is as fine a laying queen as any one could wish, and she is three years old. She was sent through the mails. I have had queens to live for four and five years after being shipped through the mails. I am well satisfied that it won't hurt a queen any more to stop laying in the summer than it does in the winter; if so, they would be worthless after swarming; but in the case of swarming, the queen prepares for swarming by reducing her egg-laying, that is Nature. And in shipping queens we must follow Nature as closely as possible. To do that we must give the queen a chance to free herself of eggs before caging. If she is properly caged, and not hurt in introducing, she will be as good as if she had not been shipped.

The shipping will not hurt queens, if they do not get chilled. But to take them from the combs, and cage and ship when they are full of eggs, I am sure they would be injured.

Now for the very yellow queens—I will admit they are mostly produced by artificial means, but if we can improve the color of the queen, then what is the reason we can't improve their laying qualities as well? The cause of the queens being yellower, that are reared artificially is, they are kept warmer while in the larval state, and better supplied with royal jelly. Then the colony is only allowed just as many queen-cells as it can take proper care of, and it is impossible for them to start any more, and they will be well cared for, and not scattered all through the hive, a part of them to be neglected. Then we have the advantage of selecting the eggs or larvæ from the choicest queens, and like begets like, except where we improve.

Aurora, Nebr. CHARLES WHITE.

Piping and Quahking of Queens, Etc.

After reading the various articles in discussing the disease known as bee-paralysis, my friend, Uncle John Doty, and myself decided to put in young queens in his diseased colonies, and in no instance did it fail to cure. I re-queen every year, and never have had a case yet.

Bees stored nothing in the forepart of the season but honey-dew. We got about 25 pounds of yellow honey per colony, and bees went into the winter with plenty of stores.

I ask Dr. Miller's pardon for not answering his question on page 376 in proper time; but I will say that I was called to Iowa by he fatal sickness of my father at that time.

All queens in the cell sound the same, and all queens out of the cell the same. What we believe is, that the bees do not hold back queens in cells, whether they want to swarm or not. A queen will hatch out (other surroundings favorable) if there is not a worker-bee within a mile.

Mr. Doty and I hatch our queens in full colonies in the brood-chamber, and do not take them out of the cage until we think all are hatched out; then we make nuclei out of that colony, and when those queens are laying we take them out and use them; and then put the nuclei together again—practically the same hive—giving them one of the queens.

Now if Dr. Miller will read my letter on page 281, and does not understand it yet, I will send him a diagram, if he would like one.

J. H. ROSE.

Galt, Mo.

The Ladies' Home Journal, of Philadelphia, Pa., and the BEE JOURNAL—both together for one year for only $1.65. The first-named journal is the grandest monthly for the home that is published in the world to-day. New or old subscribers to either journal can take advantage of the low rate of $1.65 for the two papers. This offer expires on Feb. 1, 1894. Send all orders to the office of the BEE JOURNAL.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, in Washington, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

* * *

CHICAGO, ILL., Dec. 4, 1893.—There were but few shipments of honey to this market last week. The cold weather started business up, and honey moved some better than heretofore. Fancy and No. 1 is getting scarce, and prices are on the upward tendency. Fancy, 16c.; No. 1 white, 15c.; fair, 14c. Extracted is moving slowly with plenty to satisfy demand. Beeswax, 20@22c. J. A .L.

CINCINNATI, O., Dec. 8.—Demand is good for all kinds of honey in the jobbing way, for family use. There is a slow demand from manufacturers. Extracted honey brings 5@8c.; comb honey sells at 12@16c. a lb. in a jobbing way for best white.

Beeswax is in fair demand at 20@23c. for good to choice yellow. C. F. M. & S.

CHICAGO, ILL., Nov. 1.—Fancy white comb honey brings 15c. per lb. Grades not grading first-class are not selling at over 14c., as there has been quite a quantity of California honey received here, and is offered at 14c. The quality is superior to most of that we receive. Dark comb honey sells slowly at 12@13c. Extracted ranges from 5@7c., according to color, quality, flavor and style of package. The trade in honey has been large this season.

Beeswax, 22c. R. A. B. & Co.

ST. PAUL, MINN., Oct. 9.—Our market for comb honey is improving, and receipts since our last report have moved off fairly well, prices unchanged. We quote best white comb honey 14@15c. for California. Extracted lower under free offerings from the coast; we quote 5½@6c. for white or amber in five-gallon tins. S. & A.

NEW YORK, N. Y., Nov. 1.—Our market on white honey is weak and shows no activity. Supply is plenty, arrivals are large, and the demand is light. Hence prices have a downward tendency and concessions have to be made to effect sales. We quote: Fancy white, 1-lbs., 14c.; 2-lbs., 12c.; fair white, 1-lbs., 12c.; 2-lbs., 11c.; buckwheat is scarce—1-lbs., 11@12c.; 2-lbs., 10c. The market is well stocked with extracted of all kinds. We quote: White clover and basswood, 6@6½c.; California, 5½@6c.; Southern, 55@65c. per gallon.

Beeswax, 24@25c. H. B. & S.

BOSTON, MASS., Oct. 9.—We quote honey as selling fairly well. Best white at 15c. Extracted, 6@7c. Beeswax, 25@28c. B. & R.

CHICAGO, ILL., Nov. 23.—The Chicago market has plenty of honey, and 14c. seems to be the outside price obtainable. Anything that will not grade strictly No. 1 must be sold at 12@13c. Large quantities have been sold, but the supply is at present in excess of the demand. Extracted finds ready sale at 6@6½c. for Northern honey; Southern, in barrels, 5c. Beeswax, 22@24c. S. T. F. & Co.

ALBANY, N. Y., Nov. 23.—Honey market is easier on light and mixed grades, and firm on buckwheat. Small combs sell at 11½@12c. H. R. W.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN, 28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

F. MUTH & SON, cor. Freeman & Central avs

Square Glass Honey-Jars.—Messrs. Chas. F. Muth & Son, of 978 Central Avenue, Cincinnati, O., wish us to say that they again have a full supply of Square Honey-Jars, and can fill all orders promptly. They are handsome jars for the purpose, and should be used liberally among honey-producers. Send in your orders for them.

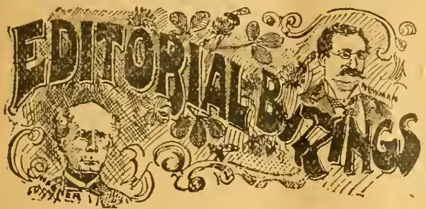
—AUTOMATIC—
Comb Foundation Mills
MADE BY W. C. PELHAM, MAYSVILLE, KY.
25D10 *Mention the American Bee Journal.*

Sample of the only 50c a year 16-page ag'l & home weekly; circulars, etc., of best household steam cooker; & terms to agents, all for 2c stamp Agents clear $50 a week.
FARMER'S CALL, Quincy, Ill.
Sample paper free. New subs., 1 year, 25c.; 3 yrs. 50c.

ESTABLISHED IN 1861
THE AMERICAN
OLDEST BEE-PAPER IN AMERICA
BEE JOURNAL

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

VOL. XXXII. CHICAGO, ILL., DEC. 28, 1893. NO. 26.



SLOW BUT SURE.

Better the old way of striving,
And counting small gains when the year is done,
Than to use our forces all in contriving,
And to grasp for pleasures we have not won. —*Selected.*

◆

A Happy New Year to all our readers, and many returns of the day when we hope the good new resolutions may not only be made, but fully kept throughout the future years.

◆

A Complete Index to Vol. XXXII will be found on page 826. Somehow we cannot help pointing with a great deal of pleasure to the index at the end of each volume of the Bee Journal. It indicates in a nut-shell the vast amount of information to be found in a single volume, and no doubt, of itself, the index would serve as a most excellent sample copy of the Bee Journal. Only those who have ever prepared and published an index can possibly know of the great labor it requires; so we trust that our readers will not fail to appreciate this particular part of our work. Of course we are glad to publish the index, as it is of so much value to those who are careful enough to preserve and bind the Bee Journal for future reference.

Bee-Keepers' Union Report for the 9th year will be found on page 823 of this number of the Bee Journal. It will pay you to read it very carefully, and if not a member now, you should join at once. Voting blanks and copies of this Report may be had by addressing General Manager Newman, who has so faithfully, wisely, and successfully directed the efforts of the Union ever since its organization. Although small in membership, it is apiculture's "standing army," and practically invincible in its defense of the just rights of bee-keeping. All should rally 'round its victorious banner.

◆

☞ Every successful apiarist may well be compared to a General of an army, who must collect his forces, equip them for the struggle, and lead them to victory.—*Dr. Tinker.*

◆

Volume XXXII of the American Bee Journal is completed with this number. Next week'Volume XXXIII will commence. So you see the Bee Journal is climbing along the years at a rapid rate. Nearly a third of a century old! Can it be possible? Yes, 'tis true; and—'tis well.

For over 30 years the Bee Journal has striven—with more or less effort and success—to elevate the industry which it exclusively represents, upon a higher plane; it has endeavored to spread abroad such information as should most aid the advancement of practical apiculture; and has tried to exalt bee-culture to its just and deserved position among the most beneficent branches of our glorious American agriculture.

While the Bee Jouunal now marks

another milestone in its long career of usefulness and commendable endeavor, it does not forget that it has not at all times and under all circumstances measured up to its highest opportunities, or shed the light that it might have given out had its wise and lamented originator lived longer to bless it and humanity with his profound apiarian knowledge, and great ability to focus within its columns the grand results of European investigation and experimentation. And yet we feel that a great deal of permanent value has been accomplished.

As for ourselves, we can refer to only about a year and a half of effort to continue, in a measure, the work carried on for years by our worthy and energetic predecessor; but while in the main endeavoring to continue the principal features and aims of the Bee Journal, as we found them when assuming full control of its destinies, yet we have at times departed from the well-beaten paths, and introduced features which we trust may enhance its value to all as time goes on. We can only promise, that if our life and health are spared, and sufficient support extended, we shall not rest content until the old American Bee Journal completely fills its high mission of bearing to mankind the best and most reliable information to be obtained upon the important subject of bee-culture.

And now, with the kindliest of feelings toward all its friends; with the earnest hope that good health, unbounded happiness, and richly-deserved prosperity, may all be theirs; and with the earnest desire to faithfully serve them in the future, the Bee Journal bids farewell to the departing year of 1893, and looks hopefully and cheerfully toward the approaching year of 1894.

Mr. James Heddon—once a prominent figure in apiculture—is about to re-enter the bee-keeping ranks after a few years of enforced retirement to attend to business matters of importance to the city in which he resides. In the December *Review* Mr. Heddon says:

> We have sold our electric-light plant to the city, and I am going back to apiculture in old-fashioned style; I am going into the old work both mentally and physically, heart and hand.

Bro. Hutchinson shows in two very neat pictures, Mr. Heddon's home, and also home-apiary, which he visited last October.

Selling Adulterated Honey.—A case of alleged adulteration of honey recently came up in the Cleveland courts, and the seller of the product fined. The item reads thus: "George G. Willard, of Cleveland, O., has been arrested and fined $70.85 (including costs) for selling adulterated honey." The court relied for its decision upon the report of a chemical analysis of the honey itself. Mr. Willard claims that he did not adulterate it, but sold it just as it came from the bee-keeper in whose apiary it was produced.

Owing to the unreliability of chemical tests of honey, it behooves every honest honey-producer to carefully mark or label each package of honey he produces and sends out from his apiary. Verily, there are interesting times ahead, if courts in cases of alleged honey adulteration are to base their decisions upon the results of so-called chemical tests. The Bee-Keepers' Union may have to step in and help in these matters.

☞ Each bee-keeper ought to thoroughly understand the honey resources of his own locality. He should know when to *expect* a honey-flow.—*Hutchinson.*

The Alley-culturist might be a very appropriate name for what has been known for some years as the *Apiculturist.* The contents of the numbers of that paper for October, November and December, we notice, was almost wholly written by Bro. Alley himself. That's individuality for you, with a vengeance. But as Bro. Alley seems to enjoy it immensely, we won't object.

The Biographical Sketches, if we may judge from the many expressions of appreciation, have been a very attractive feature of the Bee Journal this year. If we are not mistaken, we have presented in that department all except one of those who answer queries regularly, besides many others. The missing one we have tried to get, but so far we have been unsuccessful, we regret to say. We started out to accomplish this much at least, as we felt that it would be exceedingly interesting to see the faces (on paper), and know at least a little about all those who have been so long in the "nut-cracking" business.

We are glad to know that in one thing,

any way, we have succeeded, and that is, to have a biographical sketch and picture in the BEE JOURNAL *every week for a whole year*. It has taken some planning to do this, and no little anxiety lest we should have to miss having the department some week, but fortunately we have been able to continue it regularly without a break for 52 weeks. We hope to be able to continue this entertaining department of the BEE JOURNAL right along.

◆

To Indiana Bee-Keepers.—The 13th annual convention of the Indiana State Bee-Keepers' Convention will be held in Room 15 of the State House at Indianapolis at 9 a.m., on Jan. 5, 1894. Prominent bee-keepers have promised to attend. All are requested to bring samples of honey and anything new in bee-appliances. Articles should be forwarded by express (charges prepaid) to Chas. F. Kennedy, Room 14, State House, Indianapolis, Ind. A grand meeting is anticipated, and bee-keepers are urgently requested to be present.

The following is the programme, which promises to be very interesting:

Address by the President — R. S. Russell, of Zionsville.

Honey as Food and Medicine—Dr. J. M. Hicks, of Indianapolis.

Profits of Bee-Keeping Combined with Other Vocations—J. A. C. Dobson, Brownsburg.

Do We Wish to Prevent Swarming?—Geo. P. Wilson, Tollgate.

Properly Managing the Apiary—Chas. F. Muth, Cincinnati, O.

Bees for Profit—David Leaming, Arcadia.

Controlling the Mating of Queens—W. S. Pouder, Indianapolis.

Characteristics of Different Races—J. F. Michael, German, O.

Bees for Profit with Least Attention—Dr. E. H. Collins, Carmel.

Value of Honey Exhibits and Bee-Conventions—E. S. Pope, Indianapolis.

Our Honey Resources Compared with Those of Other States—Geo. C. Thompson, Southport.

GEO. P. WILSON, *Sec.*
Tollgate, Ind.

◆

A B C of Potato-Culture is the title of an attractive, 220-page pamphlet just issued by Bro. A. I. Root, of Medina, O. Price, postpaid, 40 cents. It is illustrated, and neatly bound in imitation leatherette. It was mainly written by Mr. T. B. Terry—the greatest specialist farmer in this country—and tells all about raising potatoes.

We thought we used to know something about raising potatoes, some 15 years ago, for we remember very distinctly digging 60 bushels in one day, with an ordinary 4-tined barn-fork, with a handle about three feet long. (They were what we then called "Early Rose" potatoes, and fine ones, too.) We notice that Mr. Terry calls such a fork as we used, the "Boss Unpatented Potato-Digger;" but we also see that he had a man that dug over 220 bushels in nine hours with that kind of a digging-machine. That digger-man must have been a distant relative of the "Digger Indians," for we don't believe we ever could dig so many potatoes in so short a time as he did.

Better get that potato book, friends, and learn how not only to dig potatoes, but also how to have lots of them in the ground before commencing to dig.

◆

How to Advertise.—Bro. Hutchinson, in the December *Review*, has one business editorial that ought to be read and heeded by every advertiser that desires to build up a paying business. Here is the item:

Avertising, *good* advertising, in these times is almost half the battle. I have in mind a queen-breeder who keeps his advertisements running the whole year. Whenever I write to him for a few queens, I always have to wait a long time before he can fill my order—so many orders ahead. But when I send him a bill for advertising the money always comes back by return mail. I have in mind other men who send in an advertisement in June, and stop it in August or September, saying it does not pay them.

I am well satisfied that a man can commence *now* and so advertise that he will have a good trade next season in almost anything that bee-keepers need to buy. See what a trade Mr. Trego secured by getting out an attractive line of advertisements last year. It's none too soon to begin advertising for next season's trade, and the better the advertising the greater will be the trade. I feel perfectly free to talk in this way, if I do have advertising space to sell, because I know that what I say is *true*, besides, I "take my own medicine," as they say, and find that it does me good.

We can endorse every word Bro. H. says. Why, we wouldn't think of advertising spasmodically, semi-occasionally, etc. *Regular* advertising keeps your name before the people, and later on secures the patronage. Try it, and see.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Detecting Honey Adulteration.

Do you know of an easy or simple way of trying extracted honey, to find out whether it is mixed with anything besides honey? If so, I would be pleased if you would give me the recipe as soon as possible. The reason I would like to know of such a recipe is this:

About three weeks ago I saw an article published in our local paper, on trying extracted honey to discover whether it was mixed with other stuff or not; it is this:

Take twice as much alcohol as you want to take honey to try; put in a bottle and shake the whole well, and if no sediment goes to the bottom of the bottle, it is pure honey, for pure honey would all dissolve in alcohol and no sediment would settle to the bottom of the bottle if it was pure honey.

I have tried the directions twice, but failed altogether, as the honey would not dissolve at all, and settled to the bottom of the bottle after I had shaken it well. I have sold a lot of extracted honey in the town where the paper is published, and if my customers would try it, and find it as I did, they would be disappointed, and blame me for mixing other stuff with the honey, but I have sold nothing but pure honey.

If you do not know of any way to tell adulterated honey, you would do me a favor if you would send this to some one who could answer it, if you know of such a person, and have others try the recipe which I send with this letter, although it is in the German language. Probably I did not have pure alcohol, or did not understand exactly how to make the experiment. M. R.

Raven Stream, Minn.

ANSWER—No, we don't know of an easy way of detecting adulteration in honey, and don't believe there is any. The thing has been much discussed, and until lately the best chemists, with the best apparatus at hand, seemed unable to say for a certainty whether a sample of honey was pure or adulterated.

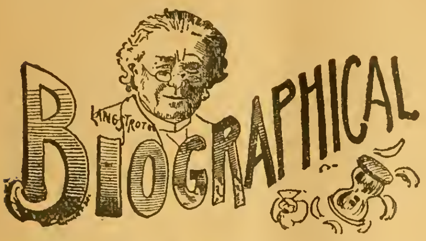
It seemed rather strange that so easy a plan of determining the purity of honey should all at once come to light in your local paper, and in order to find what would be the result of such a trial the recipe was sent to one of the veteran bee-keepers so that it could be tried on honey that he knew for certain was absolutely pure. Here is what he reports:

"I took some white honey of excellent quality, drained from a section, so that I know there could be no possible question as to its purity. Then I got from the druggist some alcohol about which he said there was no question as to its purity. But instead of taking just twice as much alcohol as honey, I took four times as much, for of course the more alcohol the more readily the honey would dissolve, if it would dissolve at all. I shook it thoroughly, and have shaken it occasionally during a half day, but the only result that I can see is that the alcohol looks a little milky. The honey all stays at the bottom. According to that test I have never produced a pound of pure honey in my life."

Your paper will no doubt be very glad to make the proper correction, for such things are copied from one paper to another, and of course they have not the time to test everything. The only wonder is how such an absurdity ever got started.

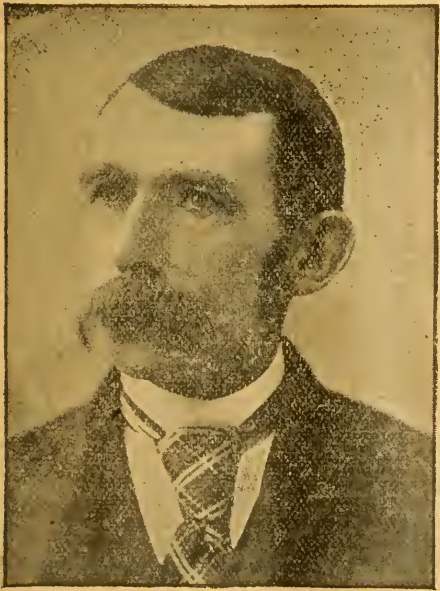
"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5¾x8½ inches in size, and contains 270 pages nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, postpaid, from this office, $1.00; or clubbed with the BEE JOURNAL for one year, for $1.60.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.



No. 62.—John H. Martin—Rambler.

For over a year we have rambled around among bee-keepers (by pictures) in this department, until now we have come to the real and only Rambler.



JOHN H. MARTIN.

How fitting it is to thus close a year of "picture rambling" with Rambler's picture. "To make a short story long," as our German friend would say, we will let those who know Mr. Martin speak of him.

First, we have a short sketch written for *Gleanings*, by Bro. John H. Larrabee, and published in 1891, as follows:

The subject of this sketch was born in the town of Hartford, N. Y., Dec. 30, 1839. His grandfather came from the State of Massachusetts, and was one of those hardy Puritan pioneers who settled in that region near the close of the last century, and there carved comfortable homes from the virgin forest. He was a man of high native qualities and Yankee shrewdness, and from him John H. seems to have inherited his full share. As John was an only son, he was given educational opportunities, spending some time at a neighboring acadamy, and at the Fort Edward Collegiate Institute.

In 1868 he married Miss Libbie C. Edwards, who died in 1881, leaving no children. She was an estimable lady, and her death was a great loss to the community.

For many years Mr. Martin followed agricultural pursuits on his father's farm; but owing to a somewhat frail constitution, and the death of his wife, followed, in 1883, by the death of both his parents, he gave up the farm entirely; and bee-culture, which had formerly been a side issue, was given all his time and attention.

His grandfather was the first to introduce into that section the Weeks patent hive, which, at that time, was a great improvement. By observing his grandfather's bees and methods, he early became interested in the bees and hence he can hardly tell when his career as an apiarist began. As early as 1874 we find him with 55 colonies of bees, and a contributor to *Gleanings*. Since that time his apicultural career has been plainly indexed by his contributions.

Since he has devoted all his time to the bees, it has been his method to keep from 200 to 300 colonies, running them for extracted honey, and doing all the work himself, except during the extracting season. One season his crop was 16,000 pounds of honey, and his average for 12 or 15 years was about 7,000 pounds of extracted honey per year. Since the advent of the Heddon hive he has adopted it and its methods.

In person Mr. Martin is quite tall and slender; there is not an ounce of spare flesh about him. In manner he is very modest and quiet, yet continually, through his eyes and his words, one sees the humor of the man. He has a great love of the quaint and humorous side of humanity, yet his humor never offends by its coarseness, nor galls by its acidity. The series of articles written under the *nom de plume* "Rambler," has made him well known to all the readers of *Gleanings*. His method of combining the entertaining and the instructive in a manner to make it read by all is very characteristic.

Mr. Martin is a true Christian—very zealous in Christian work, and is a leading member and deacon of the Congregational church. He has long served as superintendent of the Sabbath-school; and in all matters pertaining to the spiritual and temporal welfare of the society his influence is felt, and is always on the side of right.

JOHN H. LARRABEE.

The foregoing by Bro. Larrabee tells of Rambler before he rambled off to California. Here is what Bro. Geo. W. Brodbeck has to say of him since residing near the "Golden Gate:"

THE RAMBLER IN CALIFORNIA.

I have never indorsed the method of some writers in hiding behind a *nom de plume*, and while the subject of these remarks is to me no longer a Rambler, yet the past has impressed itself so indelibly on my memory that I cannot forget the time when I, as well as others, used to scan every article, sentence, word, and foot-note, in the hope of solving the oft-asked question, "Who is Rambler?"

I believe I am charitably inclined, and disposed to forget past offences, but the remembrance of this "hide and seek" by an individual in whose rambles we have always been so deeply interested, is even now almost sufficient provocation to sting "The Rambler," and then turn about and ramble over "The Stinger."

When we first learned of Mr. Martin having the California fever, we awaited every report with much interest, and when his case was at last declared incurable, and a change of climate prescribed, we realized the fact that the Rambler was out for a very long stroll.

It is now nearly 2½ years since I learned of his arrival in this State, and his contemplated location in the Sacramento valley. The writer at that time was Secretary of the Southern California Bee-Keepers' Association, and as the meeting of this organization was near at hand, being desirous of securing an attraction, and in hopes of dislodging him from a section which contains but comparatively few bee-keepers, we set forth the inducements of the pastures green here in Southern California for a more extended ramble than up north.

The evening previous to our meeting, a number of us were having a social buzz—such as only bee-keepers can have—when a very timid knock announced a call for admittance; the call was answered, and before us stood a tall, modest, unassuming individual, who (we at the time supposed) had stumbled in by accident. Our look of inquiry was answered by the simple announcement —"I am J. H. Martin."

As we conducted him into the presence of those assembled, the buzz which existed previously continued, but the moment we stated we had the pleasure of introducing Mr. John H. Martin, silence prevailed, and the awe-stricken individuals realized the fact that they were in the presence of The Rambler.

Now, do not infer from this that we were not pleased to meet him, for we were; but remember we had always pictured him to ourselves wearing striped pants, stove-pipe hat, and the ever-conspicuous umbrella—and here he presents himself with the conspicuous absence of them all!

He remained long enough on this visit to get a taste of our salubrious climate, and to partake of the generous hospitality of which California bee-keepers possess an abundance, and the result was, as we had hoped, the acquisition of Rambler as a permanent fixture; and since then he has been of great benefit to apiculturists as well as horticulturists, and when our Prof. Cook is once again planted and rooted in California, we will be possessed of a team that can out-pull all opposition.

But then, I must avoid any tendency to flattery, for this Rambler, as stated, is a very modest personage, and yet his pronounced individuality has resulted in forcing him to the front, and as evidence of this was his selection as Secretary of the California State Bee-Keepers' Association at its first organization, in January, 1892, and his re-election in January, 1893.

"The Rambler's Den," since coming to this part of the State, was at first located at Riverside, but disappearing from that favored haunt he turns up at Redlands, where it was my good fortune, several months ago, to enjoy his hospitality, and again of late at Rambler's ranch near Bloomington. I know the ever-sympathetic female portion of the bee-fraternity would be very much interested in the present surroundings of our rambling friend, but when I consider the subject, and the unsuspecting individual connected, do not be disappointed if I fail to enter the inner sanctuary.

I found him very pleasantly situated

in a very pretty cottage shaded by the evergreen pepper-tree, located a mile and a half from Bloomington, and a mile from the apiary, which he has had charge of the past season. I soon learned that he was a lover of cats, as they seemed quite numerous, which, to me, was evidence of refinement, for you know, as a rule, refined people love cats, and this, no doubt, will endear him all the more to kindred minds.

I noticed quite a collection of pictures that adorned the walls, and there stood that inseparable tripod holding the camera which has pictured so many interesting rambles in *Gleanings*, and which, if presented to an audience by a stereopticon, would afford a very lengthy and entrancing exhibition.

The preserved copies of these scenes, dating back many years—the old home place, the friends of long ago, and of those left behind—give one such a vivid impression of his past life that a touch of sympathy steals over him, and he realizes the fact that before him lies many a page from life's history.

There is much to interest one within Rambler's cottage, consequently it will be impossible to enumerate all. Aside from his photographic hobby, we noticed a display of insects, such as tarantulas, centipedes, and the skin of a rattlesnake; and while the Rambler may not admit his fear of things ghostly, the above evidently proves he has no fear of things mortal, unless it be a woman. But do not imagine, dear readers, that the female gender have any fear of the Rambler, as we incidentally found out that a few evenings previous to our coming, a party of 25 young people surprised the occupant of the ranch, and, before he realized the fact, took entire possession. You can surmise the rest, as we only present this as evidence of our friend's influence over his neighbors, and how generous the community is in which he resides, to thus cheer up and brighten the fireside of the Rambler.

We must not pass by another pet, and one in which he takes great pride—the famous broncho Vixen, formerly owned by a Wilder man than Rambler, and whose antics were so picturesquely portrayed in one of Rambler's rambles during the past year. We were anxious to witness some of these antics, and when Rambler proposed driving to Riverside, I readily assented with a two-fold purpose—the one, as stated, and the other to visit Mr. Hubbard and wife (of Hubbard hive fame) in their present home; and as it is but natural for Hoosiers to possess a kindred feeling for each other, we were anxious to again greet them on their return.

After lunch, Vixen was attached to the cart, and off we started, every moment expecting the show to begin; but during the whole ride of 15 miles Vixen never bucked once, but her gait at times was a caution, and nothing but a firm hold on the cart prevented us losing our equilibrium.

You all, no doubt, have been on board a train of cars where they would start up with a jerk—so you can thus judge how pleasant these successive sensations were in riding behind Rambler's Vixen; nevertheless we enjoyed it hugely, and it demonstrated to us the wonderfu magnetic influence of mind over matter

The visit also was a delightful one and on our return to the cottage—oh what an appetite! And right here I wish to say that our friend is one of the best cooks it has been my lot to find in California, so I am not surprised that in this respect the Rambler glories in his independent bachelorhood.

GEO. W. BRODBECK.
Los Angeles, Calif.

IN SUNNY SOUTHLAND

CONDUCTED BY

Mrs. Jennie Atchley,

BEEVILLE, TEXAS.

Zinc and Its Uses in the Apiary.

Seeing something said about zinc, in *Gleanings*, not long since, I will add my mite of experience. There are many places that zinc is valuable. One point is, if you will use queen-excluding zinc over the hive-entrances of weak colonies they will not swarm out and get lost, or lose their queens. The bees may come out, but the queen cannot, and most of the bees, if not all, return to the hive.

2nd. It is the best remedy for robbing I ever saw. If the bees have any disposition to protect their hive, a robber-bee will never get through the zinc. So right there the zinc serves a two-fold purpose.

Then, in the third place, the hives are secure from mice in winter, when you use the zinc over the entrances, which is an item. When it rains the zinc does not swell; or shrink in dry weather, but is reliable, and will do its duty at all times. It is usually the weak colonies that are bothered by robbers; also the weak ones that swarm out, and I have often thought that the main cause of weak colonies becoming discouraged was being tantalized by robber-bees.

Then, just think of the *perfect* control of the drones with Dr. Tinker's drone-excluding zinc! I can hardly estimate its value to me.

JENNIE ATCHLEY.

Tons of Honey in Cuba.

MRS. ATCHLEY:—In November (our first month) we took a little over six tons of extracted honey. December and January should each give us 12 or 13 tons; and February and March, each, about the same as November.

A. W. OSBURN.

Cuba, W. I., Dec. 4, 1893.

Not a Lonely Widow.

MRS. ATCHLEY:—Please excuse me for being so bold, but you often speak of your two boys, and not of your husband. I take you for a widow. Please answer in the AMERICAN BEE JOURNAL.

Frankford, Mo. A FRIEND.

Yes, Friend, I have a kind, Christian and affectionate husband; and, by the way, one of the greatest bee-masters of the South. JENNIE ATCHLEY.

Another Way to Kill Skunks.

MRS. ATCHLEY:—You ask about killing skunks in California. Some use a little honey and strychnine spread on a piece of paper in front of the hive, but I don't like the plan. I take a small piece of comb containing sealed drone-brood, in which I insert a grain of strychnine. Place it in front of the hive, and you have got his skunkship sure.

The reason I do not, or did not, like the honey and strychnine, was because the bees were liable to get it. Of course you must take up the pieces that are left in the morning, or your fowls might get it.

Place the bait in front of the hives at night. I always found the "chap" right on the spot. They are remarkably fond of the brood. Of course, if you have no drone-brood, you can use worker-brood—it only takes a very small piece to fix him, and you can soon clean them out for a long distance from the apiary, so you will have no more trouble.

Just about the time you moved, I forwarded you my photograph and an old copy of the *Illustrated Bee Journal*. I have often wondered whether you received them, as I got no notice about it.

DR. E. GALLUP.

Santa Ana, Calif.

Doctor, I am glad you gave me your skunk remedy, and I trust you will not be offended if I give it to the public without permission, as I deem it very valuable, not having thought of using poisoned brood. I could have saved a fine lot of hen's-eggs, as we used them to put poison in. Please accept my thanks for the remedy.

Yes, I received your photograph, and during my moving and sickness in my family, I neglected to acknowledge its receipt until a few days ago. I thank you for it, and the old bee-paper, and wish I had more photographs of old time bee-keepers. JENNIE ATCHLEY.

Mr. P. J. Mahan Wanted.

MRS. ATCHLEY:—Could you favor me with any information about Mr. Phineas J. Mahan, who left here the latter part of 1859, for Texas? Since then I have not heard of him. My friend was deeply interested in bee-keeping, and in a patent bee-hive of Rev. Mr. Langstroth, then of New Jersey, whose agent Mr. Mahan was, and lived at Raign's Point, opposite Philadelphia. His father was a maker and designer of fashion plates.

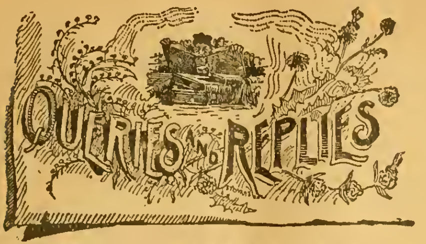
WM. NORRIS HUNTINGTON.

2242 N. 30th St., Philadelphia, Pa.

Should any reader know of the whereabouts of Mr. Mahan, or his family, please write to Mr. Huntington.

JENNIE ATCHLEY.

"The Honey-Bee: Its Natural History, Anatomy and Physiology," is the title of the book written by Thos. Wm. Cowan, editor of the *British Bee Journal*. It is bound in cloth, beautifully illustrated, and very interesting. Price, $1.00, postpaid; or we club it with the BEE JOURNAL one year for $1.65. We have only four of these books left.



Ventilation for Out-Door Wintering, Etc.

Query 903.—1. Please give the most approved ventilation for out-of-door wintering, and whether you would approve of a bee-space left over the top of the frames for bees to travel through from one frame to another, rather than the Quinby method of making holes through the combs. 2. Do you approve of moving the hives together, placing them side by side for additional protection for winter?—Delta.

I have had no experience.—EUGENE SECOR.

I have no experience.—MRS. JENNIE ATCHLEY.

1. Query 902 answers this. 2. In union there is strength; likewise warmth. —MRS. L. HARRISON.

In my climate the only preparation the colonies get for wintering is a bee-space over the tops of the frames, and a quilt.—J. P. H. BROWN.

1. I do not like to mutilate my combs, but I think it very desirable to have some passageway. 2. Not in Michigan winters.—J. H. LARRABEE.

1. See answer to Query 902. To lay long corncobs crosswise of the frames is *much* preferable to cutting holes in the combs. 2. No.—MRS. J. N. HEATER.

1. I should give the bees an opportunity to pass over the tops of the frames. As for the rest, I have not had sufficient experience to warrant an opinion.—R. L. TAYLOR.

1. I don't know *which* is the most approved method. I should prefer space over the top of frames, to holes through the combs. 2. I never tried that way. —A. B. MASON.

1. The best ventilation for out-door wintering is a wide-open entrance, and a bottom-board kept free from dead bees. A passage over the frames in winter, out-of-doors, is worse than useless. Holes through the combs are an advantage.—M. MAHIN.

1. I approve of both space and opening, and there need not be much ventilation, if the entrance is left open. 2. If in single-walled hives, it would be well to move them.—P. H. ELWOOD.

1. Give ample room at the entrance, with one inch space over the tops of the frames. Don't make holes through the combs. 2. I see no advantage in placing hives close together.—J. E. POND.

1. I would prefer a space over for bees to pass at all times, summer and winter alike. I used to cut holes through the combs, but do so no longer. 2. Answered in No. 902.—A. J. COOK.

1. Leave the entrance opened full size. A bee-space over the frames may be provided in the cheapest way to advantage. Then provide close, warm packing above. 2. No.—G. W. DEMAREE.

1. If your frames are of the dimensions of the Langstroth, I would prefer the bee-space over the frames. Should they be of the American pattern, the holes *a la* Quinby are preferable.—J. M. HAMBAUGH.

1. Give full width of entrance, and cover the top of the frames with a sheet of common unbleached cotton-cloth, over which place a 4-inch sawdust cushion. I prefer a space over the combs, to holes through them. 2. No.—G. M. DOOLITTLE.

1. The burr-combs are sufficient to give a passage from one frame to another. 2. We leave our hives on the summer stands. If you remove them, a great many bees will be lost during their winter flight, for they will not notice their change of place.—DADANT & SON.

1. Ventilate only at the entrance. Never under any consideration allow upward ventilation. A space above the frames is all right—better than holes in the frames—if you use a good cushion on top. 2. I don't think I would ever move the hives together.—H. D. CUTTING.

1. I suppose most out-door winterers leave the entrance open full width, and most of them leave some chance for the slow upward escape of air through something called an absorbent. A bee-space over frames is more easily made and kept. 2. I don't see why there may not be advantages in it.—C. C. MILLER.

1. Opinions differ greatly on this point. I believe in a space below the frames, a large entrance, and no upward ventilation. Other things being equal, I would prefer the holes through the combs. This is so much trouble that I

doubt if it pays. I prefer to use a frame so shallow that holes are unnecessary. With a shallow frame, double brood-chamber hive, there is a free communication directly through the center of the hive. 2. Yes, provided the hives are not moved more than a foot or two from their usual position.—JAS. A. GREEN.

1. We give our bees room to get out and in the hive during the winter months, but not as much room as in summer. Our frames let the bees have room over them, also around the sides. I don't want any holes through the combs. 2. No. With our quadruple hives, there are four in each cluster, and that is all I would put together.—E. FRANCE.

1. I do not know what the most approved ventilation is. I simply leave the entrance to the hive wide open, let it be large or small. I prefer to let the bees pass over the tops of the frames, but a cake of sugar candy should be placed above the passage-way to make sure that no bees died from starvation. 2. In my opinion nothing is gained by so doing.—EMERSON T. ABBOTT.

1. Bottom ventilation with a half-inch hole in front of the hive one-third the way up from the bottom. It is easier to provide a passage-way over the top of the frames than to make holes through the comb—either would answer the purpose. 2. I have wintered a good many colonies in clamps, ten or twelve in a clamp, set close together, all covered except a small part of the front.—S. I. FREEBORN.

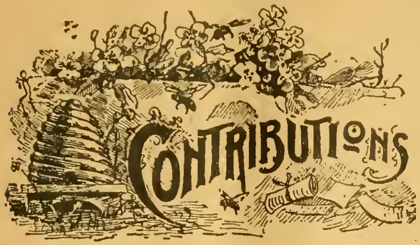
1. All the ventilation required is what will go through the absorbing material with which the hive should be packed. A small hole should be left near the top in the outer case. A bee-space should be left over the frames in some way. Holes through the combs are good, but require too much attention to keep them open. 2. Yes, it is a good plan where but few hives are to be cared for.—C. H. DIBBERN.

1. With the entrance clear, a porous covering above, and a half-inch hole in the cover—the ventilation will be all right. But be sure to keep the entrance clear. By all means, have a good double bee-space above the frames. Use a Hill's device, or two or three corncobs. 2. When convenient, I would place the hives together—it insures considerable warmth and protection.—W. M. BARNUM.

This query is to the point, and should be fully understood by all bee-keepers who follow out-door wintering. Referring to my answer to Query 902, it will be seen how bees may be safely packed for winter, and it only remains to give the proper ventilation. I give an entrance 7/16 inch deep by 11 inches long. It is left open in winter. Over the brood-frames I use a single thickness of heavy duck cloth which costs 3 cents to the hive. This I lay flat on the frames. In my 7-inch brood-frames the bees always go under the combs in going from frame to frame in winter. In a deep frame I should place two or three small sticks ½-inch apart crosswise of the frames, and lay the cloth over them. The "Hill's device" gives too much open space. I put on the cloth late (so the bees will not gnaw and pull at it or wax it), and take it off early in the spring, and replace by a thin board. Over the cloth I use 4 or 5 inches of packing. No holes are made about the top of the winter case or cover for the wind to sweep through, but all air that circulates (and it does circulate) must go through small cracks or spaces about the top of the hive. Any large holes or openings allow a draft through the hive, and will predispose to bee-diarrhea. In other words, the ventilation must be the slow, gradual escape of the air which steadily pours in at the entrance, and must come out at the top of the hive so as not to create what is called a draft. The air just outside of the cluster of bees, on a cold day, is from 50° to 60°, according to how near to the cluster the temperature be taken. If the temperature without is only zero, or a few degrees above, the cold air goes in at the entrance with some force to fill the vacuum created by the heat about the bees. If this air goes out of the top of the hive in a draft, the heat of the bees will be carrird with it; hence the necessity that the top of the hive above the brood-frames should be as tight as ordinary mechanical skill can make it—there seems to be no danger of getting it too tight for the air to get out. With this kind of ventilation the combs of the hive will always remain dry and free from mold, and in the spring the bees will come out with that shining luster of their bodies—that sleek appearance which shows at once their vigor and health. 2. I do not approve of moving a lot of hives together. It takes too much labor for the doubtful advantage gained.—G. L. TINKER.

* * *

One-Cent Postage Stamps we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us.



Marketing Honey—Questions on Mr. Melbee's Methods.

Written for the American Bee Journal

BY DR. C. C. MILLER.

Friend York:—I've obeyed your injunction to "think about these things," that you gave us on page 617. Done a good bit of thinking about them, in fact. I suppose you mean to encourage us to emulate the example of Mr. Melbee, for you ask, "Now, why cannot almost any bee-keeper do as Mr. M. has done? I'm glad you put in that "almost," for I'm pretty sure I couldn't do it, and I should feel badly to disappoint you if I thought you expected it of me. I'll try to tell you why I can't do what Mr. Melbee has done.

I can imagine myself going into a house with a sample of honey, saying to them, "Here is some of the finest honey that was ever produced. It is made by bees, with not the slightest taint of adulteration. If you buy of me, you are sure of getting the genuine article. Every bee that worked on this was decorated with at least three stripes of gold—none of your common stock—and the honey is correspondingly fine. Just taste it."

After tasting, the good woman says, "Yes, that is good honey. You may give me a pound."

"Why, you see, it's put up in 5-pound packages, and that's the smallest package I have. I'm sure there will be no difficulty in using 5 pounds of as nice honey as that."

"Oh, I don't know that there will. I guess I'll take the 5 pounds. How much is it?"

"$1.20 for the 5 pounds, and 10 cents for the pail; and you can return the pail, if you wish, and get back the 10 cents for it."

"A dollar twenty cents! Why, isn't that pretty high. That's—let me see—why, that's 24 cents a pound. Why, I can get comb honey at Hutchison's grocery for16 cents a pound."

"Yes, but that isn't as nice honey as this."

"Maybe it isn't, but we've had as nice white honey as ever was, and the last we got was 18 cents, and we haven't paid over 20 cents for years. Patrick and Otis both keep it, and I guess yours is hardly worth six cents a pound more than theirs. I think I'll not take any."

Now I suppose Mr. Melbee would go on and sell that woman 5 pounds of honey at 24 cents a pound, but I don't believe I could. Really, I don't believe I could.

I don't believe I need go any farther Mr. Editor, to answer your question, (so far as I am concerned,) why almost any bee-keeper cannot do "as Mr. M. has done."

Now that I've answered your question, Mr. Editor, would you mind answering a question or two of mine. Does Mr. Melbee live in a mountainous region where the people are miles from a grocery and know nothing about the prices of honey? Or does he live in a community where the people are immensely wealthy, and care nothing about what they pay for a thing? And how does it come that the people don't find out that they can get honey for so much less?

Looking at your market reports, I find extracted honey as low as 5 cents, and nothing higher than 8. I suppose there would be no trouble in getting any amount at 7 cents. If sold at 24 cents there is a margin of 17 cents, and after paying the agent a commission of 10 cents there is left a profit of 7 cents a pound for Mr. Melbee. That would make a profit of $630 on the 9000 pounds the agent sold. Now as you think others might do as well as Mr. Melbee, don't you think other agents might do as well as his agent of last year? And don't you think he could have a hundred agents at work by enlarging his territory? Or put it moderately, and say 20 agents, leaving Mr. Melbee his whole time to make purchases. That would bring in for Mr. Melbee the neat little sum of $12,600 clear profiit a year, and no stings to stand.

If it's a fair question, and wouldn't be intruding too much into Mr. Melbee's private affairs, would you be kind enough to tell us something about the financial standing of a man who has been doing so well, getting 24 to 32 cents a pound for the last 18 or 20 years? How much is he worth? Or if that's impertinent, is he a very rich man?

There are some other questions I would like to ask, but perhaps you don't like too many that don't come under the head of "general questions."

Marengo, Ill.

[Oh, Doctor, you are *so* inquisitive! We think we'll not try to answer any questions, but invite Mr. Melbee himself to reply to them. He will be able to do so much more satisfactorily than we could, and we are sure that an article from him on this subject would be much more interesting and helpful than anything we might write about it. We may say, however, that Mr. Melbee *does* sell honey at the price given on page 617, whether or not you could do it, Doctor.

Another thing: Mr. Melbee is not the only one we know, that is getting a good price for his honey. It pays to *know how* to market honey, and we hope that ere another crop is produced, hard-working bee-keepers may have learned just how to dispose of their honey at a good price.

Now we are ready to hear from Mr. Melbee.—Ed.]

Theories Regarding the Origin of Foul Brood Examined.

Written for the American Bee Journal

BY S. CORNEIL.

(Continued from page 787.)

The reader will by this time have come to the conclusion that, of Mr. McEvoy's "strong chain," there is not a single link remaining, and that instead of charging the jurors to believe the "evidence," "a judge on the bench" would instruct them that the prosecution had failed to make out a case, and to find a verdict for the defendant, without leaving the box.

It has been stated by correspondents of the bee-periodicals that, if the method of curing foul brood practiced by Mr. McEvoy, and by others for a century before his time, is sound and successful, the treatment by using disinfectants cannot be well founded. Before I had given much study to the subject, I held a similar opinion myself, but on looking into the question more closely, I saw that both methods are scientific, the rationale of the cure in both cases being based on the theory that the disease is caused by germs.

It is not denied by any one that foul brood germs get into the honey and pollen in a foul-broody hive. True, those who have examined such honey under the microscope have not found the germs, but the search was so much like the proverbial "hunt for a needle in a haystack" that no weight should be attached to the failure. These germs may be found in the chyle stomachs of some of the bees of a diseased colony, and the most reasonable way of accounting for their presence is that they are carried there in the food; are plentiful in the intestines, and they are voided with the excrement. That they still retain their vitality, and that they are capable of starting the disease, is proven by the experiment made by Mr. Cummings, described in *Gleanings*. Mr. Cummings scraped two grains of excreta from a hive which contained foul-broody bees, and mixed it with half a pint of syrup. He fed this syrup to a healthy colony, ten miles distant, the hive being in a wire-cloth tent, to protect it from other bees. In 13 days the disease was discernible, and in four weeks the combs were reeking with foul-broody larvæ. Since the excrement is voided on the wing, diseased bees may distribute the germs over a large section of country, and when the feces become pulverized, the germs are ready to be carried by the winds in all directions; but this is a digression.

I have said that foul brood germs are plentiful in the chyle stomachs of some of the bees of a diseased colony. The brood food is elaborated in this stomach, regurgitated, and fed to the larvæ. Some of the germs are carried with it, and of course attack the larvæ. This fact was ascertained by Schonfeld. So long, therefore, as diseased bees continue to act as nurses, so long will they communicate the disease to the larvæ, even though fed on the purest honey in the world.

Now suppose a drug strong enough to paralyze the germs, or as the scientists say, to inhibit their growth, is fed to the nurses, so that it forms a part of the "bee-pap" which they feed to the larvæ, the germs are thereby rendered as harmless as any other foreign matters, and in this inactive condition they are eliminated from the system.

I wish it to be noted that I have not said that the disinfectants must *kill* or *destroy* the germs. No one has ever claimed that they do, and only a novice would expect to be able to administer a drug strong enough to kill the germs, without killing the bees also. Hundreds of cures effected in this way are on record, although I find that Mr. McEvoy says "the drug system is always a failure." He should be more careful. Scores who have read his articles know that the drug treatment has been effective, and knowing this, they are likely to discredit or discount this, as well as his other statements.

Before it was known that the foul brood disease affects mature bees, as well as the brood, and when it was believed that the infection was some mysterious thing, which permeated every particle of the honey, in some such way as a perfume pervades every portion of our clothing, the belief, that the consumption of the least particle of honey, carried by the bees from the diseased hive, is sure to infect the brood, was not unreasonable; but since it became known that the infection in the honey is simply the germs it may contain, and that germs remain in the stomachs of diseased nurse-bees, no matter how free from germs the honey they consume may be, the theory must undergo modification to accord with these more recently ascertained facts. Besides, it is only a guess that the diseased honey carried by bees shaken on starters is consumed in four days. It is on record that a swarm, in summer, lived ten days without food, and made a good colony afterwards. Schonfeld ascertained that a bee lives 36 hours after the honey in its honey-sac is all consumed.

It is not because the infected honey the bees carry with them is all consumed in four days that Mr. McEvoy's method cures, but because during the interval between shaking the bees on starters and the first appearance of young larvæ requiring to be fed—an interval of about ten days under Mr. McEvoy's treatment—the diseased nurses either die off, or become too old, or too sickly to continue to act as nurses. The authorities say that a healthy bee quits nursing, and goes out as a forager at from 10 to 19 days after it emerges from the cell. There is reason to believe that a diseased nurse-bee gives up nursing much sooner; owing to the growth and multiplication of the germs in the bee, the blood is used for the sustenance of the parasites faster than it is produced, so that diseased bees are found to be almost bloodless. The brood food is found to be composed at least partly of the secretions of glands, situated probably in both the head and the stomach, and glandular secretions are always drawn from the blood. Consequently, little or no blood, little or no secretions, and without secretions, nursing is at an end.

As I have said elsewhere, Mr. McEvoy has a method which cures, and he has the aptitude to induce others to give his method a trial — two very important qualificaiions in a foul brood inspector, although neither the one nor the other comes within the line of his official duty. On the other hand, his theory includes only two ways of propagating the disease—originating it through dead brood, and spreading it by robbing. Foul brood has started up again after treatment by the McEvoy plan, but the theory must be saved at any expense, therefore robbing from a diseased hive is supposed to have taken place, without any one knowing for certain whether it did or not.

If Mr. McEvoy continues to advise bee-keepers not to disinfect their hives, and if they take his advice, foul brood will not be "a thing of the past in Ontario" just yet awhile, and it will be some time before the foul-brood inspector will find "his occupation gone" for want of hives requiring to be inspected.

Lindsay, Ont.

A Protest About Honey being Adulterated in California.

Written for the American Bee Journal

BY J. H. MARTIN.

I wish to protest vehemently against one very important clause in Mr. Newman's remarks on page 699, upon Mr. F. H. Hunt and the adulteration of honey; the clause referred to is as follows: "*But in California he seems to be making it 'almost pure glucose.'*"

For the last two years I have been working an apiary owned in part by Mr. Hunt, and if "*in California he seems to be making it almost pure glucose,*" of course your humble servant must be cognizant of the fact, and the general reader would be led to believe that I had done more or less of the criminating business. Now let me say that besides working this apiary, I have helped some in the others, and have been in at all hours of the day and night, and have seen no glucose used; had it been nearly all *glucosed in California*, I would have seen carloads of the stuff around, for it could not have been hid.

A greater portion of Messrs. Wheeler

& Hunt's honey was sold early to a local dealer in Riverside. The greater portion of the honey from the apiary that I worked was sent under my own name to a Boston firm, Mr. W. E. Clark, Mr. H. E. Wilder, and myself, loading a car. To the certain knowledge of us three, there was never a drop of glucose within five miles of that carload until we carted it through the streets of Riverside, and then the only chance of it being near glucose is that there might have been some in confectionary shops; and it left California as did all of the honey in San Bernardino County—the pure, unadulterated sweet. When I say "all of the honey in San Bernardino Connty," I wish people to understand it just as I put it.

It is possible that in our large centres, like Los Angeles and San Francisco, it is adulterated, and there are rumors to that effect. If it is, it is adulterated for local markets in near-by States, and I do not believe our honey is adulterated to much of an extent, to ship across the continent; and for the very good and sufficient reason that it would hardly pay to ship glucose out here to ship back again.

Nearly all of our large dealers have houses in the East, and when they proceed to adulterate, the honey is shipped, and mixed on your side of the Rockies, saving quite an item of freightage on the adulterant.

Now while I speak in full vindication of Mr. Hunt on this side of the continent, I am srue I cannot say what he has been doing since he went East in August. I am aware that a carload of comb and extracted honey was shipped to him after he had been in the East a few weeks, and I was informed that it was shipped to St. Paul, Minn.; further than that I know nothing about his operations, for there has been no correspondence between us since he went East. I sincerely hope Mr. Hunt can clear his skirts of this grave charge, not only for his own sake, but also for the sake of his family and friends here.

During my acquaintance with Mr. Hunt the past two years, I have found him strictly honorable in his dealings with me.

I think at least in one case, in the Von Dorn controversy, that Mr. Hunt was exonerated; at least I was so informed and made such a statement in my description of Messrs. Wheeler & Hunt's apiaries, in *Gleanings* for December, 1892.

I wish also to speak a word for Mr. Wheeler, being a partner with Mr. Hunt; and if Mr. Hunt is guilty of the charge of adulteration, then Mr. W. might come in for a part of the censure. Mr. Wheeler is merely a capitalist in the business, and not a bee-manager. He lives in Riverside, and is Superintendent of the Victor gold mine, and if any adulteration has been practiced his name cannot be connected with it. Mr. Wheeler's name stands well with business men, and he is a very honorable man.

I think that California bee-keepers will be aroused to defend the fair name of their product, and will stand by the Bee-Keepers' Union in all efforts to punish the guilty parties, be they friends, or anybody else. And if they do arouse, may God have mercy on the culprit.

Bloomington, Calif.

A Non-Swarming Strain of Bees —The Other Side.

Written for the American Bee Journal

BY S. E. MILLER.

I fear when the reader's eyes fall on the above heading, he will be tempted to pass it by, as the subject seems so threadbare; but as most of the writers on this subject favor the idea of eventually producing a non-swarming strain of bees, perhaps something on the negative side would not be amiss.

The prevention of increase seems to have been desirable almost as far back as the history of the honey-bee extends —at least by certain bee-masters and under certain conditions; and from then down to the present day, it has remained an unsolved problem.

Who has ever tried to produce a strain of cattle, hogs or chickens that would not increase if given the opportunity? I think I hear some one say, "Ridiculous! who would want such cattle," etc.? I answer, no one, of course; but suppose such was desirable, how would we attempt to produce such strain? Has not the Great Master, who made the cattle, made the bee also? Has He not placed within it the same instinct to multiply, in order that its kind may not become extinct? Why do bees swarm? is another question often asked, and one often answered with a long-winded attempt at wisdom or science, while the answer is simple, short, and definite. Simply because the Almighty God intended that they should swarm—increase.

We might as well ask why the Canada

goose wends its way northward to Hudson's Bay at the approach of spring, there to lay its eggs, hatch and rear its brood, and bring them South in the autumn. Or why all birds build nests, lay eggs, hatch and rear their brood each spring. To use a modern phrase, I would say, "Because they are built that way."

BEE KEEPERS SUPPLIES.
A. I. ROOT.
MEDINA, OHIO. U.S.A.
A. I.
MEDI
OHIO
MANUFACTURE

Exhibit of Bee-Keepers' Supplies Shown at the World's Fair by Mr. A. I. Root.

The cattle-man has bred his cattle for milk, for beef, for butter; he has bred off almost all their horns; he has placed them under different conditions and surroundings, and yet how much has he changed their nature? He has domesticated the honey-bee. He has made it to work pretty much to his liking, and yet how much has he changed its nature?

The poultry fancier has bred nonsetting strains of fowls (that will not set unless they want to); but he has not yet bred a strain that would lay eggs that will all hatch out pullets, as the beekeeper would expect his non-swarming queen to lay all worker and no drone eggs, even under the most favorable conditions for swarming.

Only a few years ago we quite frequently heard of a non-swarming strain of bees: they would pop up first here, then there, but soon after we didn't hear of them, and have not heard of them since. Just now we have a "non-swarming strain." Why, in the past two years we have not had swarms enough to make it worth while getting out the dish-pan and cow-bells, and the number of our colonies has been gradually growing beautifully less! With backward springs, cold, wet weather, and no honey-flow at swarming time, it is no trouble to have a non-swarming strain of bees; but let the conditions be reversed, and the non-swarmers will be the first to swarm.

Bluffton, Mo.

RANDOM STINGS

FROM THE STINGER.

Why is it that so many writers in the bee-papers of late are lapsing into poetry? I am pleased to note that the editors of *Gleanings* have not fallen into the habit. As that journal has not tried to correct the evil, I think The Stinger had better start a reform in that direction; therefore, he will try to keep from using poetry any more in this column.

Mind you, I do not say that I shall not refrain from using some lines that may rhyme, so long as they suit my purpose; they will not be *poetry*, of course.

Talking about imitators awhile ago, reminds me that if any one living in glass houses should not throw stones, it should be the people who furnish the material to fill up our enjoyable friend, the *Progressive Bee-Keeper*. Let me see, I will take the November number and see what it contains. There is first a poem on "November." Well, that is timely, even if it is not real poetry; then comes "Notes from the Star Apiary." There is very little relating to the apiary noticeable in the "notes." The writer would have done better, I think, to have had his notes labeled, "From the Star Apiary Library." I like the general trend of his notes, nevertheless, and wish to see the notes continued every month, even with all the stars between them. (I suppose these stars are a sort of a trade-mark of the Bluffton paragrapher.) Then comes Somnambulist. His style of "Wayside Fragments" are pretty well known by this time, and I need not say anything more about them, other than to remark that he is, taking him altogether, a pretty wide-awake writer. Then the next article is a lot of "notes;" and the next is a lot more of "notes." But I shall not say anything more about them. These things happen sometimes without one doing it with any intention of imitating.

I stated some time ago that a lady in Texas was contemplating the publishing of a paper devoted to the bee and honey interests of that State. I did not give her name, as I had learned of it in a rather confidential way. In a quite recent issue of the BEE JOURNAL I see that Mrs. Atchley, who was the person I hinted at, has abandoned her intention of running any such publication. She shows good sense in keeping out of the publishing business.

It is next in order to hear from California. Will those people at Los Angeles please arise and say that they, too, have abandoned the idea of inflicting a poorly-supported paper upon a long-suffering apicultural world? I assume that such a paper will be illy supported, and if there is any brother who wants to bet me a nail out of an old shoe against a year's subscription to the "Old Reliable," just let him hold up his right hand until I see it, and I am his man.

"Hutchy," of the *Review*, went shooting during the close season in one of the agricultural buildings at the World's Fair. Like a poucher, he did it clandestinely, and with better luck than such shooters usually have, for he brought down a number of pictures of honey exhibits in that building.

Some of these pictures he gave in his nice, dainty *Review*. Oh, Hutchy, dear, how could you do such a naughty thing? Didn't you ever go to Sunday-school and learn that it was not right to steal? Perhaps it may not be called stealing, yet some people will call it such.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

National Bee-keepers' Union.

GENERAL MANAGER'S

9th Annual Report,

FOR THE YEAR 1893.

Another year has been added to the history of the National Bee-Keepers' Union, and I will now attempt to recount and review the work done during the year, so that the members may be fully informed concerning it.

The amendments to the Constitution, proposed in the last Report, were voted upon and carried almost unanimously—the vote being 289 for them, to 28 against. There were 31 blanks. The blanks were mostly from new members, who thought they ought not to vote at the time of their first introduction.

The election closed on February 1st, 1893. There were then 348 votes received, and the canvas of them resulted as follows:

For President—Hon. R. L. Taylor, 141; James Heddon, 136; scattering, 50; blank, 21.

For Vice-Presidents—C. C. Miller, 272; G. M. Doolittle, 270; A. I. Root, 265; A. J. Cook, 242; G. W. Demaree, 228; scattering, 248.

For General Manager, Secretary and Treasurer—Thomas G. Newman, 321; scattering, 3; blank, 24.

For Salary of Manager—20 per cent., 342; scattering, 6. Back salary voted, the years being added together, amount to 566. This, divided by the number of votes, lacks a little of being twice—carrying for only one year, and leaving votes for 218 over. It therefore commenced with Jan. 1, 1892.

First Battle for the Year.

The result of "the first round" for the new year, in the battle with the enemies of the pursuit, was a complete victory for the Union—demonstrating its value to the bee-keeping industry. It is worthy of remark, that it is equally successful, no matter whether with Courts which administer the laws, or Legislatures which enact them.

On January 16th, as soon as the Senate of Missouri got to work, Senator Sebree introduced a Bill, entitled, "An Act to regulate the keeping of honey-bees in cities, towns and villages in this State, and to provide a penalty for its violation." The first section read as follows:

> No person shall own, keep, or have in his possession, or under his control, any honey-bees in boxes, bee-gums, or other things of confinement in any city, town or village in this State, whether organized under general or special charters, nearer than fifty feet from the line of any adjacent real estate owner, or person in possession of such adjacent property.

Section 2 provided for a penalty of from $10 to $20 for each week that the bees were there, after notice to remove them.

Section 3 provided that if the bees could not be kept at that distance from adjacent neighbors, "then in such event the keeping of them in such city, town or village is absolutely prohibited."

This was a clear case of prohibition of the pursuit in all "cities, towns and villages" in Missouri, if it had become a law, for a bee-keeper must have OVER a hundred feet to be able to keep his bees "fifty feet from the line of any adjacent real estate owner, or person in possession of such adjacent property." But few bee-keepers would have more than fifty feet in all.

Mr. W. S. Dorn Blaser, ex-Secretary of the Missouri Bee-Keepers' Association, sent a copy of the "Bill" to the Manager of the Union, and instantly the "Decision of the Supreme Court of Arkansas" was brought into play, like a gatling-gun, and copies of it were sent to the members of the Legislature and to the Governor. Letters were written to them advising them not to allow it to pass, as it was unconstitutional, and would be so construed by the courts, as they had the precedent of the Arkansas Supreme Court to guide them.

The Hon. R. L. Taylor, the President of the Union, was appealed to, and he backed up the General Manager by giving his "opinion" on the Bill—that it was unconstitutional, and should be "fought to the end" vigorously.

Mr. Joseph G. Banning, President of the Missouri State Bee-Keepers' Association, also appealed to the Manager of the Union, and was instructed to fight the Bill at every step—that the Union would "see him through," etc. If it had passed both houses, then the Governor would have been appealed to, and would in all probability have vetoed it. President Banning afterwards wrote me thus: "I thank you for your prompt assistance." It was the prompt action taken by the Union which brought this foolishness to a stop, saved the State from disgrace, and prevented the bee-keepers from being annoyed by useless legislature.

The members of the Legislature received the Bill from the Senate, and promptly killed it, for they had been "posted" by the printed matter of the Bee-Keepers' Union! The enemies of our pursuit were foiled, and the Union stuck another "feather in its cap."

The Sugar-Honey Heresy.

This "dogma" stirred up such a furore in the early part of the year, that the Manager of the Union received a shower of letters in condemnation of the "heresy." It was promptly met by the promise of the Manager to "prosecute to the full extent of the law any who may *dare* to offer for sale *as honey* any of that sugar-syrup swindle."

He stated publicly that consumers must not be trifled with. Their butter must be made from pure cow's milk, and their honey must be pure nectar from the flowers! "Sugar-syrup" must be sold under that name—not honey; just as the law requires oleomargarine to be sold under its proper name—not butter.

Bees and Peaches and Grapes.

Mr. J. A. Pearce, of Grand Rapids, Mich., was threatened by 25 peach-growers, stating that his bees were eating their peaches. All nature was perishing for want of moisture, and some insects (bugs, beetles, etc.) had appropriated the juice of a few cracked peaches and grapes, and all was charged to the bees.

The kicking peach-growers were supplied with the Arkansas decision that bees were not a "nuisance" *per se*, and that bee-keepers could and should be protected in their rights. Upon finding out the legal status of the affair, they subsided.

To show that the bees are wrongly accused in these matters, and that they do not break the skins of fruit, I refer to the following Report lately published in many rural and metropolitan papers:

"Exhaustive experiments have been conducted under the auspices of the department of agriculture to decide if the honey-bees are deserving of the severe condemnation received in some quarters from fruit-growers. Neither care nor expense was withheld. Hives were kept within a building from which the bees could not escape. In this grapes, peaches, pears and plums, varying from green to dead ripe, were placed. The bees were deprived of food, and left with the fruit exposed. Many came to the fruit, but never broke the skin; but when they found it broken they fed upon the exuding juice. They showed no tendency to use their jaws in cutting open a place.

"The test lasted 30 days; other bees were tried with similar results. In all cases food was taken only from fruit which had been previously broken. Consequently it appears that bees will not injure sound fruit. Professor Panton, of the Ontario Agricultural College, says that this is what might have been expected when the structure of the bee's mouth is considered. It is quite different in the case of wasps, which are supplied with jaws suitable to break into the skin, and in all probability they are the cause of the injured fruit upon which complaining observers have seen bees feeding."

Mr. G. B. Woodberry, of Calif., was also threatened by fruit-growers for keeping bees in that locality. He appealed to the Union, and was supplied with the Arkansas "gun," to use upon the Board of Supervisors.

On Dec. 5, 1893, Mr. G. W. Brodbeck wrote to the Manager, giving the result as follows:

"The Woodberry trouble has quieted down, at least for the present. The Supervisors instructed the District Attorney to look up the decisions rendered, as given in the Bee-Keepers' Union Report. He did so, and concluded that it would not be wise to incite or aid in antagonizing one industry against another. So we trust that the influence of the Union will be effectual."

Unfinished Business.

Several cases in Wisconsin, Iowa, New York, Canada, Nebraska, Texas, Colorado, and elsewhere are under way, and it would not be wisdom to publish anything about them now. Several of these, it is thought, will be necessarily carried to the Supreme Courts—thus to compel the highest tribunals to give bee-keepers their rights. More anon.

BUSINESS STATEMENT.

Balance, as per last Report........	$623,08
Fees from 461 members for 1892.	461.00
	1,084.08
Expenses for the year	362.37
Balance, Dec. 16, 1893.....	$721.71

The Union has engaged attorneys for the defense of several cases, the cost for which will have to be paid later.

The efforts last winter to increase the membership were not as fruitful as we all hoped, on account of the financial disturbances throughout the Country, but better times are before us, and the Union will not be forgotten.

Dues and Election of Officers.

It now becomes my duty to call for $1.00 for the coming year, as dues from each member. A Blank is enclosed to be used for sending it, and also a Voting Blank. Fill up all the blanks, and send to the Manager with a postal note or money-order for $1 in the envelope sent with it. It must be received by Feb. 1, 1894, or the vote will be lost.

When voting, care should, of course, be taken to put into office its best and most reliable members, (a good selection can be made from the list of names attached to this Report, and such only are eligible.)

As long as my services are desired and I am able to devote them, the Union will have my best energies. Fraternally,

Thomas G. Newman

147 South Western Avenue, CHICAGO, ILL.

General Manager.

Big Offer to Renewals. — We would like to call the attention of those whose subscriptions expire with this month, to the following paragraphs, in which we make a grand offer:

Of course we hope to have your renewal. With such offers as we are now making, you certainly cannot refuse. There is no other bee-paper in the United States in which you get so much value for so little cost as in the AMERICAN BEE JOURNAL at $1.00 a year; and we trust, moreover, that our old subscribers will show their appreciation of our effort to give them the best bee-paper at the lowest price, by prompt renewals. Will not you?

ANOTHER MATTER.—With such a journal as we are publishing, and such terms as we are offering, we ought to double the circulation of the BEE JOURNAL before spring. If each of our present subscribers will promptly renew, and at the same time send us one new subscriber, this will be accomplished at once.

Now, to secure *one* new subscriber to a *weekly* paper like the BEE JOURNAL, published at only *only $1.00 a year*, is certainly a very little thing for any one to do. It would seem that any subscriber could afford to do that as an expression of appreciation of the opportunity to get the paper for himself for only $1.00 a year. But we don't ask you to do that!

WE WILL DO BETTER.—If you will, before Jan. 15, 1894, send us your own renewal for one year, and send with it *one new* yearly subscriber, we will consider it a club of two, and give you any premium offered for sending two new subscribers, on page 773.

Now we know you never had an offer from any other bee-paper that would compare with that. Just look at it all through.

1st. We furnish you a *weekly* bee-paper for only $1.00 a year.

2nd. We give a premium for sending a club of only two subscribers.

3rd. We allow you to count your own subscription as one of the club of two.

Surely, we have a right to hope that *every* expiring subscription will at once be renewed, and at least one new subscriber be sent with it.

Why, on such offers as we are making, if you have not time to go out and get the new subscriber, you could afford to send the paper to some person as a Holiday present. It would then only cost for yourself and your friend about as much as your own paper would usually cost, and you would get your club premium besides.

Let us have your renewal, and do all you can to extend the circulation of the old AMERICAN BEE JOURNAL.

◆

When Renewing Your Subscription, why not send along one or more new subscribers, and take advantage of our liberal premium offers on page 767 of this copy of the BEE JOURNAL? You certainly can easily secure the subscribers, if you will show them that they also receive their choice out of several free premiums. Try it, and see what you can do.

Index to Vol. XXXII.

SUBJECTS.

- Adulteration of honey....661, 808, 810, 819
- After-swarms....215, 600
- Alfalfa.... 268
- All-wood queen-excluders....169, 344
- Alsike clover....87, 183, 184
- Always take and read bee-papers.... 365
- Ants in the apiary....77, 87, 88, 112, 182, 471, 750
- Apiarian experiment stations....232, 593
- Apiarian premiums at St. Louis Fair.... 681
- Apiaries destroyed by a gale.... 697
- Apiarist's "Ten Commandments".... 532
- Apiary work.... 624
- Apicultural discussions.... 744
- Apicultural experiments.... 552
- Api-phrenology—a new subject....403, 433, 534
- Are bees animals?.... 17

- Baby carriage.... 40
- Bean honey....243, 340, 473
- Bee-diarrhea—its cause and cure....79, 273
- Bee-escapes.... 339
- Bee hunting—how it is done.... 439
- Bee in the ear.... 649
- Bee-Keepers' Union—9th annual report.... 823
- Bee-keeping and poultry—as an occupation for women.... 787
- Bee-keeping experiences of years ago.... 434

BEE-KEEPING IN—

- Arkansas.... 110
- Australia.... 656
- California....85, 148, 274
- Cherokee Strip.... 792
- Illinois.... 39
- Iowa.... 210
- Kansas.... 408
- Louisiana....174, 601
- Missouri.... 365
- Nebraska.... 115
- Sweden.... 460
- Tennessee....113, 312
- Texas.... 366
- Utah....181, 500

- Bee-paralysis....16, 341, 367, 430, 728, 761, 762
- Bees and fruit-growers.... 743
- Bees in a Sunday-school.... 426
- Bees in the open air.... 402
- Bees killed by lightning.... 398
- Bees on July 4th.... 78
- Bees throwing out the brood....396, 505, 535
- Bee-stings and remedies....23, 120, 624, 750, 753
- Bees transferring eggs to queen-cells.... 88
- Bees under the snow.... 778
- Beeswax.... 8
- Bee-wagon.... 750
- Bee-willow as a honey-plant.... 682
- Best all-purpose hive.... 749
- Best hive for the South.... 301
- Best working colonies for next season.... 559

BIOGRAPHICAL—

- Abbott, Emerson T.... 523
- Axtell, Mrs. Sarah J.... 395
- Ayling, Rev. H.... 363
- Barnum, Wm. M.... 267
- Brown, Dr. J. P. H.... 715
- Cutting, H. D.... 141
- Freeborn, S. I.... 747
- Gale, Albert.... 364
- Gallup, Dr. Elisha.... 171
- Hachenberg, Dr. G. P.... 651
- Hambaugh, Hon. J. M.... 490
- Harbison, J. S.... 43
- Hatch, C. A.... 587
- Heater, Mrs. J. N.... 779
- Hilton, Hon. Geo. E.... 203
- Hooker, John M.... 461
- Hutchinson, W. Z.... 11
- Lockhart, F. A.... 619
- Mansfield, C.... 363
- Manum, A. E.... 427
- Martin, John H. (Rambler).... 811
- Park, Dana F.... 331
- Pender, W. S.... 363
- Pike, D. A.... 683
- Scoble, R.... 364
- Shallard, Maj.... 364
- Sherman, Mrs. S. E.... 555
- Stone, Jas. A.... 107
- Taylor, J. E.... 363
- Taylor, Hon. R. L.... 75
- Trahair, J.... 363
- Whitcomb, Edward.... 299
- Woolverton, L.... 235

- Biographical sketches.... 328
- Birds destroying bees.... 654
- Blackberry blossoms for bees.... 682
- Bleaching wax.... 753
- British honey exhibit at the World's Fair.... 199
- Brace and burr combs....657, 784
- Brood-chamber—proper size.... 401
- Brood-frame arrangement in winter.... 752
- Brood-frames from diseased colonies.... 9
- Buckwheat.... 268
- Buckwheat for honey.... 55
- Building cells on top of frames.... 682
- Building comb crosswise.... 716
- Building up weak colonies.... 118
- Button-willow....119, 246

- California honey-crop....136, 210
- California poppy.... 599
- Can bees hear?.... 205
- Can bees puncture fruit....51, 87, 530
- Candied honey in combs.... 118
- Care of honey and combs.... 233
- Caring for honey.... 40
- Carniolan bees....18, 624, 682
- Carrying bees.... 87
- Causes of winter losses—how to prevent them.. 302
- Cellar wintering of bees.... 404
- Ceresin for foundation.... 206
- Changing loose hanging frames to fixed.... 51
- Cheap extractor.... 212
- Chicago fire.... 367
- Chinaman's bee-keeping.... 180
- Cleaning old combs.... 118
- Cleaning out the bee-moth.... 526
- Clipping the wings of queens....585, 731
- Colonies deserting.... 554
- Colony not doing well.... 105
- Colony on scales.... 279
- Color of drones of a golden Italian queen.... 720
- Color or shape of hive—which?.... 717
- Comb foundation in the brood-chamber.... 563
- Comb honey in the United States.... 743
- Comfortable ignorance about honey.... 585
- Commission paid for handling honey.... [illegible]9
- Conclusive evidence that the queen is pure.... 208
- Consumption of honey by drones as compared with workers.... 439
- Convention photograph.... 618

CONVENTIONS—

- California....393, 584
- Cortland Union (N. Y.).... 117
- Indiana.... 809
- Michigan.... 776
- North American....264, 306, 390, 487, 567, 591, 625, 656, 688, 713, 721.... 753

- Corncob syrup.... 775
- Corn-stalks for hive protection.... 681
- Correct space between top-bars....553, 784
- Covering for over frames in winter.... 368
- Cross bees and honey gathering.... 561

- Dandelion honey.... 22
- Dead brood don't produce foul brood.... 558

DEATH NOTICES—

- Hammond, A. C.... 71
- Pryal, Miss Lily.... 487
- Sherman's father, Mrs. S. E.... 680
- Van Deusen, Mr. and Mrs. Chas. C.... 552

- De-queening a cure for the swarming fever....528, 754.... 757
- Diarrhea of bees while in the cellar.... 495
- Different kinds of queens.... 207
- Dissatisfied with their queen.... 364
- Donating or purchasing honey for exhibition purposes.... 338
- Drawing out foundation for combs.... 106
- Driving out surplus virgin queens.... 105
- Drone's brains.... 534
- Drones from an unmated queen.... 620
- Dones touched by the mating.... 494
- Duty on honey.... 753

- Eupatorium or boneset.... 553
- Evening primrose.... 280
- Exceptions to general rules about bees.... 179
- Experience with bees....55, 56, 78, 332, 781
- Experiments in apiculture...18, 52, 113, 167, 178, 275, 276.... 281
- Explanation about honey-production.... 716
- Extracting honey in the fall and winter.... 597

Extracting partly-filled sections 597
Extra-light colored bees 499, 631

Fall operations with bees 406
Farmers as bee-keepers 405
Farmer's honey crop 50
Father Langstroth 103, 551
Feeding back honey 115, 728
Feeding bees for extra comb in the fall 47
Feeding bees for winter 407, 428, 493, 649
Feeding sour honey 300
Ferguson bee-hive and super 425
Filling combs with water 108
Fires—Canadian Bee Journal and Levering Bros. 103, 104 711
First importation of Italian bees 598
Fixed spacing 657
Flavor of honey 393
Floriculture in Texas 77
Foley county, Tex 761
Forefathers in apiculture 269
Formic acid in the blood of bees 717
Foul brood....15, 48, 53, 80, 108, 145, 150, 176, 184, 209, 214, 244, 279, 306, 334, 364, 370, 374, 434, 501, 558, 600, 718, 775, 785, 759 818
Foundation for comb honey 212, 623
Foundation in the brood-chamber 213
Foundation starters with separators 175
Four and five banded Italian bees 499, 682
Freight rate on honey 328
Fumigating combs 683, 778, 792

Getting bees ready for winter 333
Getting bees into the sections 73, 169
Getting best working colonies 633
Getting water or nectar 109
Gipsies of the air—a bee song 394
Glucose honey 775
Glucose with a little honey in it 698
Glucosing honey 72
Golden bees 300, 402. 753
Golden-rod and aster 521
Golden-rod as a medicine 426
Grading honey 400, 691, 692

Half-pound sections 366
Has the bee to die after stinging? 717
Heddon hive advantages considered 694
Hinting at the Blarney stone 168
Hive-covers 42, 268
Hiving swarms with colonies 397
Honey analysis 105
Honey-dew aphidian honey—is it? 205
Honey-dew—a Russian drink 296
Honey exhibits at fairs—home and foreign..456, 518
Honey in candy 713
Honey market and crop in Minnesota 404
Honey-plants of northern Texas 13
Honey used in producing bees 585
Honey-vinegar 299, 753
Honey yield from buckwheat 521
How fast bees go for honey 215
How I became a bee-keeper 783
How not to introduce queens 440
How to advertise 809
How to get bees to work in the sections 686
How to keep honey 662
Hybrid and black bees 19
Hybrids or Italians 396

Illinois honey exhibit at the World's Fair....... 106, 135 457
Implements used in bee-culture 399
Improvement of bees 560, 562
Improving utensils in bee-keeping 466
Increase by dividing 691
Increase, not honey, wanted 10
Increasing the number of colonies 238
Indian apiarian names 473
Indications of the honey market 470, 496
Inexperienced bee-writers 402
Infidelity and "reason" speak 633
Intemperance the curse of the age 181
Introducing new blood to our apiaries 337
Introducing queens 204, 210
Inversion, contraction, etc 82
Iowa State Fair 54
Italian bees 437
Italians ahead of the blacks 14

Japanese honey industry 39

Keeping bees on shares 662
Keeping bees on top of a city house or store... 143
Keeping in line in apiculture 327
Keeping the apiary grass down 135
Killing their drones 170
Kind of frames 624

Langdon non-swarming attachment....108, 113, 209, 245 327
Laying-worker nuisance 522
Laying-worker or queen drone-layer 748
Laying-workers or an old queen 431
Lazy men for bee-keeping 173
Leaving on super when not storing 169
Leisure time in winter 621
Location and over-stocking 664
Longevity in different races of bees 533, 629, 755
Loose bottom-boards 135
Loose or tight hive-bottoms 429
Loss of weight in wintering 569

Mailed queens 793
Mammoth colony of bees 665
Managing bees profitably 758
Many eggs in one cell 139
Marketing of honey 583, 617, 712, 761, 762, 817
Marking a location by bees 305
Mating bees in confinement 624
Mating of queens 77
May be a new disease 268
Members of the North American 73
Michigan apiarian exhibit at the World's Fair.. 7
Michigan experiment apiary 212, 618, 680
Michigan honey exhibit 745
Mild kick from "The Kicker" 699
Minneapolis honey show 520
Mother-bee—should be called 396
Moths 716, 719
Moving bees 170
Moving bees in carload lots 526
Moving the hives lower 364
Moving wide frames with sections 205

Nameless bee-disease 42, 728, 761
National Bee-Keepers' Union 659
Nebraska honey exhibit at the World's Fair 297
Nebraska State Fair notes 489
Nebraska State Fair premium list 202
New bee-papers 296
New bee-paper idea dropped 589
New theory about the queen's will 248
New thing in hives 394
New York honey exhibit at the World's Fair.... 137
No exhibit at the St. Joseph Fair 503
Non-swarming bees 820
Non-swarming methods 20
Number of bees in a pound 360
Number of Langstroth frames for a colony at any time 655
Number of seasons a queen should lay 111
Number of sections made in 1892 201

Officers of the New South Wales Bee-Keepers' Union 363
Old bees do not locate their hive when swarming 456
Old brood-combs 753
Old colonies of bees 45
Old foundation 492
Old friends (poem) 38
Opening and then sealing cappings... ..300, 409, 492
Orange Co., Calif.—climate and production 468
Out-apiaries 86
Out-door winter protection 407

Packing bees for winter 696, 782
Painted or unpainted hives 620
Parthenogenesis 205
Partially-filled sections 492
Partly capped sections of honey 139. 336
Phenomenal honey year 137
Piping and quahking of queens 281, 376, 793
Planting for honey 52
Plants as barometers 71
Pratt self-hiver 213, 632
Preparing bees for safe wintering 371, 599
Presidio Co., Tex 665, 789
Prevention of honey-granulation 618
Prevention of second or after swarms 534, 629
Prevention of swarming 40, 41, 688
Production of comb honey 625
Proper care of honey 662
Pulled queens 17, 120, 147, 276, 534, 629, 755
Punic bees 18
Pure queens 208
Purifying dark beeswax 8
Putting bees into the cellar and taking them out 727

Queen and worker in the same cell 140, 409, 503
Queen-bee experiences 408, 473
Queen-breeders and queen-buyers 51
Queen-excluders for hives 590
Queen-excluding zinc 650
Queen questions 335
Queen-rearing 494
Queen that stopped laying 332
Queen-traps 269

Queens in the mails ... 302, 793
Queens laying in queen-cells ... 152, 280
Queens in Australia ... 361

Railroad accident ... 551
Rambler will sting the stinger ... 730
Ranch life in Texas ... 493
Ranchmen as bee-keepers—specalties ... 533
Rearing drone-bees ... 238
Rearing queens ... 494, 560, 753
Rearing young bees, but not sealing up the cells 436
Religion and politics ... 679
Remedy for worms on leaves ... 120
Removing the queen to prevent swarming ... 18
Re-queening colonies ... 118
Reversing frames ... 272
Review of a chapter by the new Prophet Samuel 182
Revolving hive-stand a failure as a non-swarming method ... 20
Ripening honey ... 300
Robber bees ... 22, 686
Robber flies from Kentucky ... 396
Robbing a church in Texas ... 654
Rocky mountain bee-plant ... 428

Sawdust cushions ... 493
Sealed covers or upward ventilation ... 731
Season of 1893 ... 71, 137
Sectional brood-chambers ... 466
Section scraper ... 520
Self-hivers ... 148
Self-hiving arrangements for swarms ... 240, 241
Self-reliance in bee-keeping ... 398
Selling extracted honey. ... 467
Seven months without a flight ... 55
Several eggs in a cell ... 238
Shade or sunshine for bees ... 140
Shallow frames and Italian bees ... 216
Shipping honey ... 118
Shoe-string binder ... 184, 530
Short-lived queen-bees ... 753
Size of hive for comb honey ... 623
Skunks in the apiary. ... 589, 686, 750, 751, 814
Sorghum syrup for winter stores ... 559
Southern reports for 1893 ... 335
Spider and the bee (poem) ... 265
Spraying fruit-bloom ... 117
Starters in sections and the 8 and 10 frame hive. 21
Starvation with plenty of honey ... 341
Stick to the bees ... 712
Stinger not a Chicagoan ... 551
St. Joseph, Mo., Fair premium list ... 329
Stopping swarms with a mirror ... 280
Stray straws ... 392
Strong colonies best ... 88
Studying bees ... 200
Sugar syrup for wintering ... 246
Suggestions to a honey-seller ... 731
Supers and combs in winter ... 586
Superseding of queens ... 727
Supposed trouble with bees ... 236
Susie's troubles at swarming time ... 73
Swarming..18, 40, 41, 73, 139, 181, 428, 554, 650, 688, 690
Swarming or dividing ... 300
Swarming out ... 42, 53
Swarm with five queens ... 312
Sweet church ... 265
Sweet clover ... 748
Symptoms of foul brood ... 364, 374
Syrian bees ... 624

Texas and her resources..45, 77, 109, 142, 270, 301, 719
Things we ought to know ... 173
Thought a bee-wagon was a "show" ... 589
Time from removing a queen to the first one hatched ... 527
Tincture of arnica for bee-stings ... 23
To which queen do they belong? ... 299
Transferring bees ... 173, 246, 621, 718
Transferring house ... 686
Troubled with brace-combs ... 268
Two laying queens in one hive ... 333
Two queens in one cell ... 248

Unfinished sections of honey ... 206, 753
Uniting weak colonies ... 407, 536
Untested queens asked about ... 463, 535
Uses of honey ... 463
Utah and her people ... 369

Value of bees to fruit-growers, farmers, etc ... 150
Value of foundation ... 120
Ventilation of hives for wintering ... 81, 815
Virgin and laying queens ... 82
Virgin queens and queen-excluders ... 152
Visit to Mr. Demaree's apiary ... 116

Was the queen a drone-layer? ... 204
Wax-secretion ... 52
What ails the bees? ... 41, 630
What experience has taught us the past few years ... 596
What killed the bees? ... 778
What subjects should bee experiment stations consider? ... 431
When to put on sections ... 301
Where was his mistake? ... 115
Which is the best hive? ... 237
Why does a swarm return? ... 41
Why do some suffer from bee-stings and others not? ... 77, 211, 436
Why were the queens killed? ... 106
Wild bees ... 428
Will Italian bees rob? ... 504
Will shade prevent swarming? ... 41
Winter and spring management ... 618
Winter consumption of honey ... 394
Winter feeding of bees ... 440
Wintering bees ... 722, 749
Wintering bees in a smoke-house ... 333
Wintering bees in cellars ... 407
Wintering bees in Tennessee ... 726
Wintering bees on the summer stands ... 369, 721
Wintering bees under glass ... 72
Wintering bees under snow ... 426, 778
Winter losses—their remedy ... 723
Winter stores—amount of ... 406
Wolfberry ... 183
Women as bee-keepers ... 108
Worker, drone, and queen origin ... 465
Working two or more colonies in one hive ... 465
Working without a queen ... 716
World's Fair apiarian awards ... 648, 680
World's Fair honey ... 263
World's Fair notes ... 103, 360, 424, 583, 615
Worms on basswood ... 24
Writing for bee-papers ... 534

Yellow banded, shiny bees ... 682
Young bees preferred for winter ... 247, 498
Young drones ... 42

Zinc and its uses ... 813

ILLUSTRATIONS.

Abbott, Emerson T ... 523
Axtell, Mrs. Sarah J ... 395
Ayling, Rev. J ... 363
Barnum, Wm. M ... 267
Brown, Dr. J. P. H ... 715
Cutting, H. D ... 141
California poppy ... 599
Ferguson hive and super ... 425
Gale, Albert ... 363
Gallup, Dr. Elisha ... 171
Hachenberg, Dr. G. P ... 651
Hambaugh, Hon. J. M ... 491
"Handy" bee-escape ... 339
Harbison, J. S ... 43
Hatch, C. A ... 587
Heater, Mrs. J. N ... 779
Hilton, Hon. Geo. E ... 203
Hooker, John M ... 461
Hutchinson, W. Z ... 11, 81
Illinois State honey exhibit at the World's Fair 457, 458, 459 ... 460
Lockhart, F. A ... 619
Mansfield, C ... 363
Manum, A. E ... 427
Martin, John H ... 811
Michigan experiment apiary ... 245
Nebraska State honey exhibit at the World's Fair ... 297
Officers of the New South Wales Bee-Keepers' Union ... 363
Old Mr. Blobbs' interesting experiment (cartoons) ... 657, 658, 659, 660
Park, Dana F ... 332
Pender, W. S ... 363
Pike, D. A ...
Root's, A. I. exhibit of bee-supplies at the World's Fair ... 821
Scobie, R ... 363
Shallard, Major ... 363
Sherman, Mrs. Sallie E ... 555
Shoe-string binder ... 531
Stone, James A ... 107
Taylor, J. E ... 363
Taylor, Hon. R. L ... 75
Trahair, J ... 363
Whitcomb, Edward ... 299
Woolverton, L., M. A ... 235

CORRESPONDENTS.

Abbott, Rev. E. T. 503
Adams, J. B. 214
Allen, Chas. B. 247
Allison J. W. 335
Andes, M. D. 280
Andre, J. H. 88, 120, 216, 371, 633
Archer, J. 473
Aten, C. G. 789
Axtell, Mrs. L. C. 596

Babb, A. C. 312
Baird, Thos. D. 150
Baldridge, M. M. 727, 761
Baldwin, A. A. 209
Banker, Otto 268
Bankston, C. B. 78, 687
Barb, J. S. 89
Barrette, Alpha, 473
Barrows, O. B. 569
Bartz, Aug. 152, 600
Beaudry, Jos. 344
Bechly, Fred, 23
Beckwith, I. W. 585, 665, 683
Bee-Keeper, 587
Belding, Chester, 762
Bellamy, Jas. R. 533, 756
Benson, E. R. 105
Benton, Frank, 264, 306
Blair, F. O. 173
Blank, F. N. 474
Blanken, John H. 216
Blecka, F. 761
Blodgett, J. W. 119
Boultinghouse, B. F. 120
Bott, Fred. 23
Bowdish, J L. 143, 302
Bradford, A. E. 119
Brady, Jesse, 473
Breece, T. C. 88
Bridenstine, E. 792
Brodbeck, G. W. 744, 813
Brooke, F. T. 139, 152, 473, 650
Brown, G. G. 440
Brown, Homer, 500
Brown, Hugh Ray, 333
Brown, J. T. 56
Brown, L. M. 463
Buckmaster, C. L. 276
Bunch, C. A. 243
Burnett & Co., R. A. 10
Burnett, W. E. 120
Burrell, H. D. 87
Burton, Jas. 503
Burton, S 89
" Busy Bee," 728

Cadwallader, D. A. 106
Campbell, W. A. 184, 530
Cargile, C. D. 268
Carter, P. G. 465
Chamberlin, C. C. 41, 88
Clark, J. W. 15
Clark, O. E. 120
Clemons, C. C. 693
Cleveland Bros. 281
Cleveland, N. E. 559
Coffee, J. F. 110
Coleman, H. F. 16, 113, 179, 248, 276, 341, 436, 599, 664, 726, 762
Collins, John 14
Comstock, J. H. 654
Cook, A. J. 76, 104, 105, 595
Coppin, A. 344
Corey, John G. 569
Corneil, S. 48,759,785,818
Couvillon, P. E. 56, 312
Coverdale, Frank, 216
Cowan, Anna L. 103, 711
Cowell, L. 620
Crandall, Chas. H. 394
Crandall, S. T. 762
Crank, C. 120
Curry, Chas. S. 248, 300
Custer, O. A. 9
Cutting, H. D. 8

Dadant, Chas. 500, 722
Dadant, C. P. 376
Dart, R. 534
Dayton, C. W. 82, 112, 148, 470, 496
eacon, S. A. 237,521,554
Dean, W. E. 682
Demaree, C. V. 119
Demaree, G W. 377
Detwiler, John Y. 698
Dobson, J. A. C. 119
Doolittle, G. M. 305, 401, 467, 597, 783
Douglass, W. S. 55
Dugdale, T. I. 405, 561
Dupert, H. 215
Dunbarr, Joseph, 793
Dunn, Mrs. Wm. 312
Durham, Henry 440
Durham, Wm. H. 170

Edwards, H. D. 184
Efird, F. B. 207
Eggers, J. F. 51
Ellis, E. B. 169
Elwood, W. R. 270
Emerson Bros. 77
Emm Dee, 211
Endicott, J. D. 533
Eskew, J. R. 409
Esneault, L. V. 589, 601
Evans, Geo. F. 396
Everman, Jake, 397

Falkner, Chas. E. 521, 536
Far West, 457
Fassett, G. W. 536
Faucett, H. P. 312
Faylor, W. P. 216, 503, 696
Feathers, Porter, 10
Fee, W. A. 246
Feeback, W. S. 215, 503
Field, Alfred, 600
Finney, H. C. 301, 492
Fisher, John D. A, 402
Flick, Rev. H. H. 312
Ford. T. S. 430
Fowke, R. C. 436

Gallup, Dr. E. 172, 274, 434, 468, 498, 56 , 662, 814
Gardiner, F. N. 169, 205, 301, 428
Gardner, M. W. 42
Geehl, Nick N. 409
Gehring, Dr. J. D. 403, 433
Getaz, Adrian, 241, 528, 757
Graden, R. 53
Graves, W. B. 428
Grimm, Adam, 437
Grover, Irvin, 152

Hachenberg, M.D., G. P. 177
Hall, Mrs. F. T. 377
Hallett, E. H. 236, 521
Hambaugh, J. M. 136
Hamilton, James, 281
Hardie, James, 23
Harford, B. F. 343
Hargrave, H. L. 173
Harmer, W. 55
Harrington, W. A. , 503
Harrington, W. L. 333
Harrison, Mrs. L. 87, 473
Harter, Wm. N. 618
Hawkins, O. R. 269
Hecht, J. F. 494
Hentrich, F. 152
Hershiser, Orel L. 309, 372
Hewett, C. P. 184
Higgins, J. F. 503
Hill, J. H. 583
Hilton, Geo. E. 723
Hitchcock, Stanton E. 536
Hogan Fred M. 215
Holmberg, J. A. 699
Holtermann, R. F. 567, 591, 623, 628, 656, 688, 716, 721
Howard, Dr. Wm. R. 13
Hubbard, J. C. 312, 751
Humpple, Mrs. J. 730
Hungate, Dr. Jas. B. 115
Huntington, Wm. N. 814
Hutchinson, W. Z. 80, 178, 273, 407, 694, 776

Illson E. W. 731
Inquirer, 618

Jackson, A. 207
Jacoway, R. H. 301
Johnson, Alex. R. 600
Johnson, Thos. 88, 119, 120, 152, 182
Judkins, Mark D. 87
Jones, Orville, 761
Jorris, Rev. H. O. 429

Kaufmau, D. 279
Keller, A. D. 244
Kelly, Thos. C. 81, 248, 280, 569
Kemp, H. 238
Kicker, 699
Klock, C. 665
Kloth, H. E. 119
Knapp, H. H. 88

La Mont, S. 601
Langstroth, L. L. 551
Larrabee, J. H. 18, 52, 113, 427, 812
Lastofka. Martin, 344
Lattner, P. 170
Leach. D. C. 216
Lee, John, 23
Leibrandt, Jr., C. A. 377
Leininger, Bros. 346
Levering Bros. 104
Lewis, Jesse B. 792
Limes, Milton, 409
Lindbeck, D. 398
Lininger, L. M. 364
Littooy, G. D. 42, 268, 535, 553, 585
Livingston, Mrs. B. J. 698, 793
Lovesy, E. S. 181, 369, 471, 530

Mann, C. V. 312, 504, 554
Marrison, R. A. 730
Martin, J. H. 584, 819
Mason, Dr. A. B, 201, 341
Mason, Jos. 280
Matheny, J. W. 535
Maximilian, 174
May, Dallas, 730
Mendleson, M. H. 78, 340
Michael, 106
Miles, E. S. 56
Miller, Dr. C. C. 9, 17, 51, 82, 147, 233, 338, 376, 395, 422, 531, 568, 628, 756, 817
Miller, J. W. 24, 365
Miller, Noah, 792
Miller, S. E. 820
" Minnesota," 19
Mitchell, W. L. 247
Moffitt, T. J. 333
Molby, F. H. 299
" Montreal Subscriber," 23, 473
Moore, E. W. 184, 586
Moore, Jacob, 731
Morris, Geo. W. 792
Moses, W. H. 247
Mott, Geo. 398
Murdock, John L. 431
Muth, Chas. F. 176, 464, 692
McCartney, G. R. 428
McCombs, H. W. 463
McEvoy, Wm. 15, 145, 306, 370, 434
McGee, W. A. 366
McKean, D. L. 140, 410
McKibben, A. T. 334

Nance, G. W. 344, 439, 731
Nash, J. A. 750
Nelson, D. L. 365
Newland, B. H. 504
Newman, Thos. G. 598, 661, 699, 825
" New York," 73
Norton, W. H. 23
" Novice," 630
Novice, Earnest, 169
Nutt, W. C. 270

One of them, 108
One stung, 41
Oren, Dr. Jesse, 598
Orgain, Kate A. 557
O burn, A. W. 814

P. D. W. 265
Parcher, R. E. 150
Pender, J. W. 657
Pettigrew, T. N. 204
Phenicie, C. E. 428
Pierce, G. R. 726
Poindexter, Geo. 247, 440
Pond, J. E, 369
Pope, Dr. Washington, 652
Pope, Ed. S. 120
Pratt, J. M. 116
Pryal, W. A. 44, 85, 10, 243, 599

Rackleff, Geo. 56
Rambler, 730
Ranger, 621
Ratliff, John, 140
Reed, L. 120
Reed, L. G. 207, 299
Reepen, H. 105, 205, 717
Rees, H. F. 493
Reichle, L. 216
Reynolds, R. T. 119
Rice, Edwin, 184
Rich, L. W. 210, 498
Richardson, F. A. 119
Richolson, A. W. 238
Rislow, O. G. 784
Robb, W. C. 408
Robbins, G. F. 662
Roberts, C. W. 41
Robertson, S. M. 42
Rockenbach, Geo. 532
Root, Ernest R. 374
Rose, Alex. 758
Rose, James H. 281, 793
Roudabush, W. O. 666
Rupe, J. H. 24
Russell, Wm. 377
Ryburn, J. B. 238

Sanford, A. C. 215
Schumacher, Clara 23
Scott, Jerry, 569
Scott, J. S. 56. 397
Scruggs, W. M. 86
Secor, Hon. Eugene, 50, 209, 520
Sherman, Mrs. S. E. 680, 787
Shirer, Green R. 312
Shultz, N. W. 22
Shultz, R. A. 281, 409, 504
Simmins, Samuel, 501
Simpson, Mrs. A. A. 247
Smith, J. P. 665
Smith, Mrs. L. M. 473
Smith, L. B. 184
Snowberger, A. H. 89
Somerville, J. 535
Southwood, J. W. 332
Southworth, A. M. 151
Spencer, C. A. 792
Spitler, Geo. 503
Sprague, Daniel, 24, 763
Staininger, N. 504
Stokesberry, R. R. 42
Stolley, Wm. 696
Stone, Jas. A. 40, 168
Stout, S. 183
Straw, A. S. 87
Subscriber, 365
Swan, Margaret S. 247, 300
Swan, A. W. 699

Taylor, B. 20, 339, 520
Taylor. R. L. 212, 233, 245, 275. 563, 617, 632. 681, 728
Teetshorn, C. E. 404
Templin, L. J. 344
Theilmann, C 404
Thatcher, L. B. 73
Thill, N. J. 621
Tiffany, T. J. 9
Tinker, Dr. G. L. 337
Truesdell, J. F. 106
Tufts, Dr. A. W. 56

Uncle Snort, 367
Unterkircher, A. F. 302, 792

Vance, J. W. 440
Viallon Mfg. Co., P. L. 174

Walker, J. E. 396
Wallenmeyer, J. C. 23, 55, 139
Washichek, Wesley H. 649
Webb, Mrs. Josie A. 46
Weber, James, 204
Webster, D. G. 87
Webster, L. A, 536
Webster, W. A. 654
Weed, Susie, 73, 504
West, A. J. 23
West, N. D. 247
Wickersham, Thos. 23
Wilkins, C. W. 117
Williams, Rufus, 248
Wilson, C. N. 393
Wing, James H. 56
W. K. F., 620
Whaling, C. N. 492
Wheeler, R. 633
Whipple, Edgar B. 665
Whitcomb, E. 202
White, Chas. 535, 631, 793
Whiteside, R. F. 212
Whitefield, R. A. 78, 781
Wood, W. R. 88, 139, 396
Wooldridge, J. L. 279, 601
Worden, W. G. 183
Wung Lung, 180

York, Geo. W. 567

Zinn, C. C. 151

Honey & Beeswax Market Quotations.

Rules for Grading.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, in Washington, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

CHICAGO, ILL., Dec. 4, 1893.—There were but few shipments of honey to this market last week. The cold weather started business up, and honey moved some better than heretofore. Fancy and No. 1 is getting scarce, and prices are on the upward tendency. Fancy, 16c.; No. 1 white, 15c.; fair, 14c. Extracted is moving slowly with plenty to satisfy demand. Beeswax, 20@22c. J. A. L.

CINCINNATI, O., Dec. 19.—There is a good demand for honey in the small way, while demand from manufacturers is still slow. Extracted honey brings 5@8c. Comb honey, 12@16c. in a jobbing way for fair to best white.

Beeswax is in fair demand at 20@23c, for good to choice yellow. C. F. M. & S.

CHICAGO, ILL., Nov. 1.—Fancy white comb honey brings 15c. per lb. Grades not grading first-class are not selling at over 14c., as there has been quite a quantity of California honey received here, and is offered at 14c. The quality is superior to most of that we receive. Dark comb honey sells slowly at 12@13c. Extracted ranges from 5@7c., according to color, quality, flavor and style of package. The trade in honey has been large this season.

Beeswax, 22c. R. A. B. & Co.

ST. PAUL, MINN., Oct. 9.—Our market for comb honey is improving, and receipts since our last report have moved off fairly well, prices unchanged. We quote best white comb honey 14@15c., for California. Extracted lower under free offerings from the coast; we quote 5½@6c. for white or amber in five-gallon tins. S. & A.

NEW YORK, N. Y., Nov. 1.—Our market on white honey is weak and shows no activity. Supply is plenty, arrivals are large, and the demand is light. Hence prices have a downward tendency and concessions have to be made to effect sales. We quote: Fancy white, 1-lbs., 14c.; 2-lbs., 12c.; fair white, 1-lbs., 12c.; 2-lbs., 11c.; buckwheat is scarce—1-lbs., 11@12c.; 2-lbs., 10c. The market is well stocked with extracted of all kinds. We quote: White clover and basswood, 6@6½c.; California, 5½@6c.; Southern, 55@65c. per gallon.

Beeswax, 24@25c. H. B. & S.

BOSTON, MASS., Oct. 9.—We quote honey as selling fairly well. Best white at 15c. Extracted, 6@7c. Beeswax, 25@28c. B. & R.

CHICAGO, ILL., Nov. 23.—The Chicago market has plenty of honey, and 14c. seems to be the outside price obtainable. Anything that will not grade strictly No. 1 must be sold at 12@13c. Large quantities have been sold, but the supply is at present in excess of the demand. Extracted finds ready sale at 6@6½c. for Northern honey; Southern, in barrels, 5c. Beeswax, 22@24c. S. T. F. & Co.

KANSAS CITY, MO., Dec. 21.—The demand for comb and extracted honey is not as good as we would like to see it. We quote: No. 1 white 1-lb. comb, 14@15c.; No. 2 white, 13@14c.; No. 1 amber, 13@13½c.; No. 2 amber 10@12c. Extracted, white, 6@7c.; amber, 5@5½c. C.-M. C. Co.

ALBANY, N. Y., Nov. 23.—Honey market is easier on light and mixed grades, and firm on buckwheat. Small combs sell at 11½@12c. H. R. W.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

J. A. LAMON, 44 and 46 So. Water St.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN, 28 & 30 West Broadway.
CHAS. ISRAEL & BROS., 110 Hudson St.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

F. MUTH & SON, cor. Freeman & Central avs.

The Ladies' Home Journal, of Philadelphia, Pa., and the BEE JOURNAL—both together for one year for only $1.65. The first-named journal is the grandest monthly for the home that is published in the world to-day. New or old subscribers to either journal can take advantage of the low rate of $1.65 for the two papers. This offer expires on Feb. 1, 1894. Send all orders to the office of the BEE JOURNAL.